Occidental Medical Times.

VOL. IV. APRIL, 1890. NO. 4.

A CLINICAL LECTURE.

Delivered at the Clinic for Diseases of the Skin of the Medical Department of the University of California,

By D. W. MONTGOMERY, M. D.,

Professor of Pathology, and Clinician for Diseases of the Skin in the Medical Department of the University.

The first patient is a Norwegian sailor, who came to me at the Policlinic a few days ago, suffering from an eczema of the upper lip. The inflammatory process was most marked at the nasal orifices, and gradually faded away from above downwards. When asked about a discharge from the nose, he said that about three months ago, when he first noticed the redness of the upper lip, he had a running at the nose, which still continued to a slight extent. I prescribed a diachylon ointment, made by gently heating and mixing together equal parts of lead plaster and vaseline, and requested him to see Dr. Arnold to have his nose examined, and if need be, treated. My next clinic day, on asking Dr. Arnold about the case, he said he had found a rhinitis very much like the rhinitis caused by taking iodide of potash internally, but which was then getting well; and on more close inquiry into the case, he discovered that the patient had gone to see a doctor some time previously on account of a cold in the head, and had got some pills and sarsaparilla, the latter being in all probability an iodide of potash mixture, which had the effect of aggravating his nasal trouble and bringing on a consequent eczema. He was warned against taking any more sarsaparilla, which he had, in fact, given up for some days, and received no further treatment for his nose. Now, you see the patient is almost well of his eczema, having only a little redness near the nasal orifices. Catarrhal diseases of the nose are responsible for other diseases of the skin of the face than the one now before us. For instance, a patient may have a pustular folliculitis attacking the follicles of the vibrissæ of the nose, and keeping up a most disfiguring and troublesome sycosis of the upper lip. Catarrhs of the nose also often cause induration and thickening of the subepithelial connective tissue, with the formation of fissures just at the anterior part of the nasal orifice, where the skin and the mucous membrane meet. Such fissures may remain long after the catarrh which first caused them has disappeared, and they often give rise to marked hyperemia of the adjacent skin of the end of the nose; one of the forms of red nose, in fact, which quickly subsides on curing the fissure.

Not long ago I saw the assertion made, with all due positiveness, that facial erysipelas could arise reflexly from hyperemia of the nasal mucous membrane; which was tantamount to saying that some cases of erysipelas were merely reflex hyperemias. One might as well say that syphilis or scarlet fever could be caused by a reflex. Erysipelas is a specific disease, caused by the cocci of Fehleisen. The only connection it has with hyperemia of the nasal mucous membrane is, that in the condition attendant on rhinitis, whether that rhinitis be scrofulous, specific, from iodide of potash, or simple, erosions frequently occur, caused by the active desquamation of the epithelial layers, or fissures form, or a crop of pustules come out. These solutions of continuity are the portals through which the specific cocci of erysipelas gain the lymphatic spaces in the subjacent connective tissue, their favorite feeding ground.

The next patient, a Dalmatian, is suffering from an attack of erythematous eczema of the face. He first had a general papular eczema of the body, which subsided under the application of a weak sulphur ointment. He then developed a marked erythematous eczema of the face, the infiltration of which was yesterday so great as to almost close his eyes. As the patient describes it, a few days ago the affection on the face began by a burning, itching, and redness on the temples, which gradually spread. The redness and infiltration of the face is well marked, but not sharply bounded, fading of gradually into the surrounding healthy skin. The diseased surface is roughened, and desquamating slightly. His tongue is flabby, indented by the teeth, and slightly coated. He has had no headache, his bowels are regular, his urine is normal, and he has had no fever during the course of his ailment. These are all points of differential diagnosis between erythematous eczema and erysipelas; for, in the latter, the diseased surface would be sharply bounded, tense, smooth, and glistening, with burning, but no itching, and the constitutional symptoms would be well marked. Furthermore, desquamation would be a sequel, not an accompaniment of the attack. This is the disease one so often hears called chronic erysipelas, a condition that does not exist. It is true, a patient may have repeated attacks of erysipelas; but each attack is acute, for erysipelas is essentially an acute disease. The treatment for this patient is Startin's mixture, that combination of sulphate of iron, sulphate of magnesia, and dilute sulphuric acid, which we prescribe so frequently to patients suffering from eczema, when they have a coated, flabby tongue, or complain of constipation; locally, we will use a soothing application, such as the calamine lotion.

This patient, a German, complains only of a pain in the chest, and the symptoms of a bad cold, which evidently has nothing to do with the lesions seen on the anterior surfaces of the forearms; these are brownish, copper-colored spots, about the size of a five-cent piece, and on the right cheek are two similar spots, one of them indurated. The hairs have fallen out of the right extremity of his mustache, because of a diseased process of which we only see the last stages; the same fate has overtaken the hairs of the outer half of the left eyebrow, and a small patch in the centre of the right eyebrow. He says the same trouble that appeared and caused the hair to fall out in the mustache and eyebrows, is now apparent on the cheek and forearms. The patient gives a decidedly non-syphilitic history, but admits gonorrheal infection several years ago. There is no sign of any induration on the penis. Of the lesions on the forearms and face, the patient gives a very unsatisfactory account. That there were crusts, and that there was suppuration we are very sure of, but whether the lesions began as pustules or as blebs, we cannot gather from his description. The question is, whether these spots are the ultimate effect of a simple inflammatory process, with the effusion into the tissues of rather more red blood corpuscles than usually takes place in these situations, or the result of a large superficial pustular syphiloderm. The lesions have been superficial; for if there had been any ulceration, involving even the papillary layer of the skin, healing would have taken place by cicatrization. There being no cicatrices is a point against syphilis in this case, for the late pustular syphiloderms almost always heal by cicatrization.

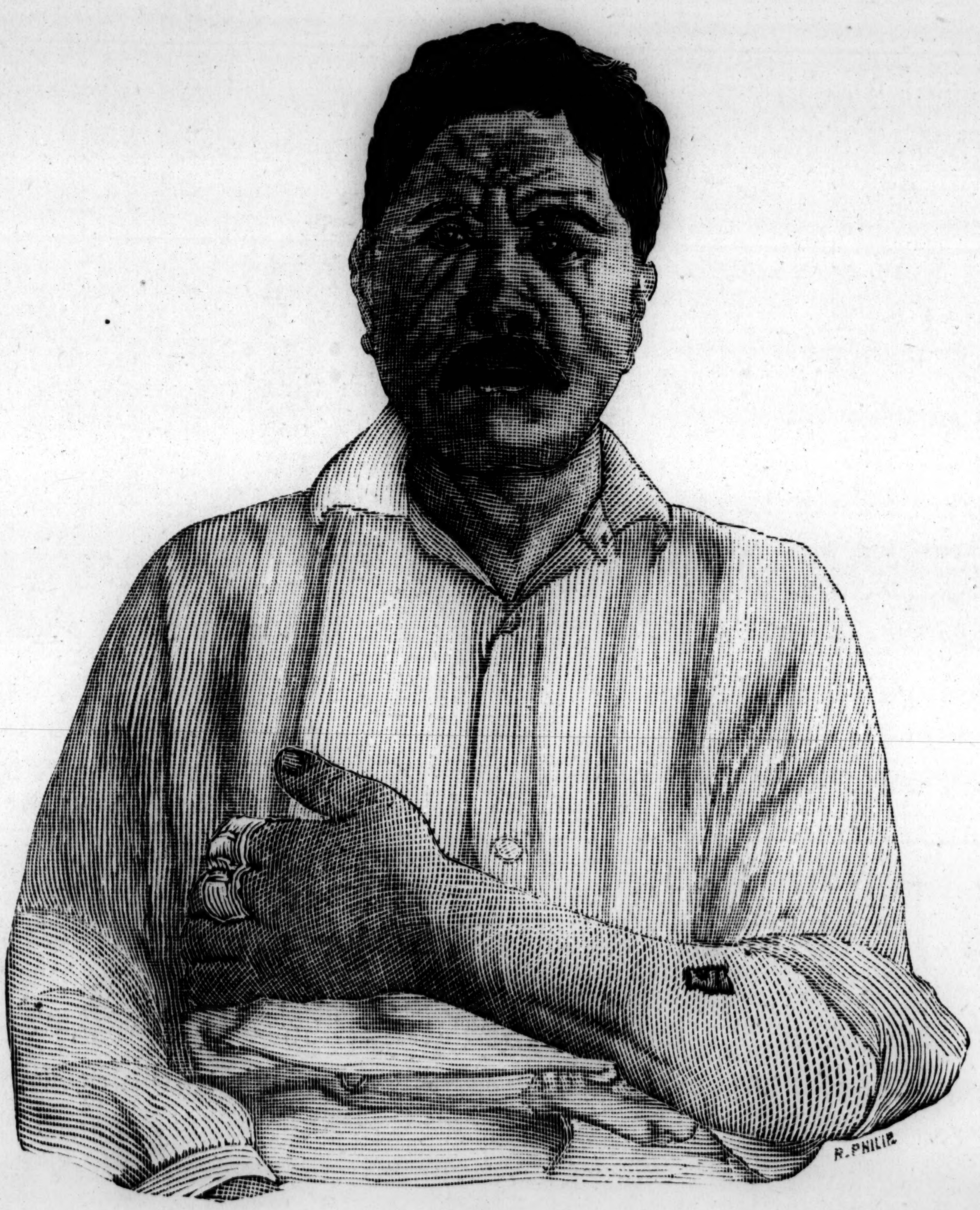
The epitrochlear glands on both sides are slightly enlarged; but it is to be remembered that he has had inflammatory lesions on both forearms, which would cause some swelling of these glands. The posterior cervical glands are not swollen. The color, size, and circumscription of the spots point strongly to syphilis, but we cannot arrive at a positive diagnosis. If the pigmented spots on the forearms were on the extensor instead of being on the flexor surfaces, we might think that they were due to a psoriasis which had been treated with arsenic, as this leaves the places where the patches have been, darkly pigmented for quite a long time. The situation of the pigmented spots positively excludes this supposition, for psoriasis has such a predilection for the extensor surfaces, that if this disease occurred on the flexor aspect, to the extent indicated by the patches on the patient before you, there would undoubtedly be traces of patches on the extensor surfaces, also.

THE CASE OF KEANU.

By SIDNEY BOURNE SWIFT, M. D., Resident Physician, Leper Settlement, Molokai, H. I.

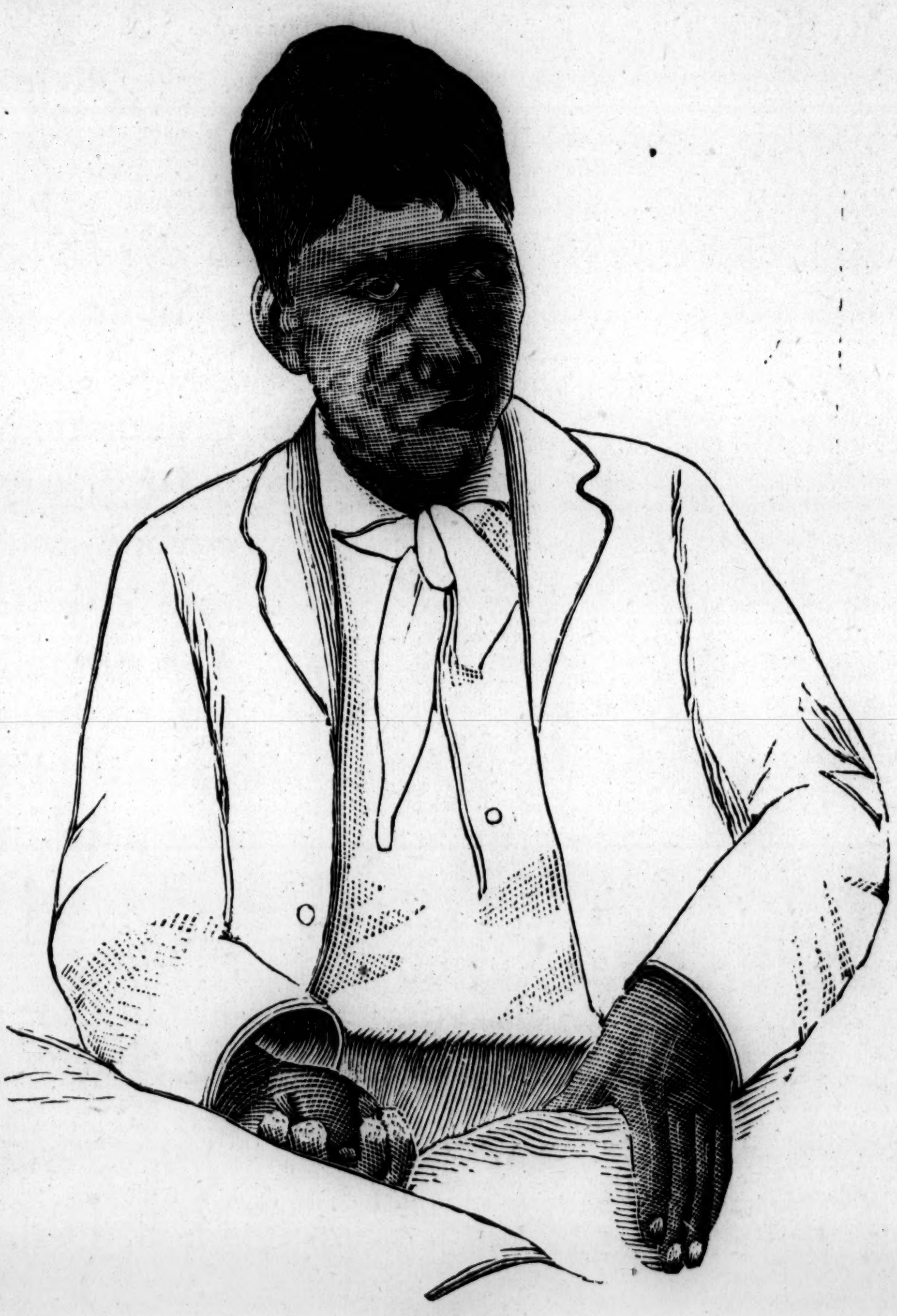
In THE OCCIDENTAL MEDICAL TIMES of January, 1890, appears an extract from a German medical journal of a report by Dr. Arning on the case of Keanu. Dr. Arning would have us believe that had Keanu not been inoculated by him with leprous virus he would not now be a leper, and that previous to the operation he was to all intents and purposes a clean and healthy man. He says: "The subject of the experiment was a large, well built Kanaka, to all appearances, of robust health; no sign or history of syphilis or leprosy and no history of leprosy in his family on either side or in his children." And further on: "During the year 1888, he must have gone down hill very rapidly, as in February, 1889 he was remanded to the leper colony, being in the last stages of the disease."

No one will deny Dr. Arning the privilege of entertaining peculiar ideas or fostering pet theories, however erroneous, but when these ideas and theories are espoused by other medical men of world wide repute and spread broadcast as scientific facts, it is but reasonable to infer that the profession will attach an importance to the subject, which the facts in the case do not at all warrant. I think that this matter should be corrected, and with that purpose, I shall briefly state the facts that are within my personal knowledge.



KEANU.

My acquaintance with Keanu dates from the day of his arrival at this settlement (February 9, 1889), and since that time I have had him constantly under observation. I therefore claim to be in a position to know more about the man's condition for the last year than Dr. Arning or any one else. Keanu, on his arrival, was immediately placed in the hospital at Kalawao, where I visited him half an hour afterwards. I found him in a very helpless condition; his face and head were badly bruised, and he had sustained a severe injury to his back and lower extremities; in fact, he was bruised all over. Inquiry elicited the fact that a few days previously he had had a "fit" and had fallen down a metallic winding stairs in the jail at Honolulu, and to this accident his condition was attributable. During the first few days of Keanu's residence in the hospital he had two or three attacks of vertigo, and it is fair to suppose that it was during one of these attacks that the accident in the jail had occurred.

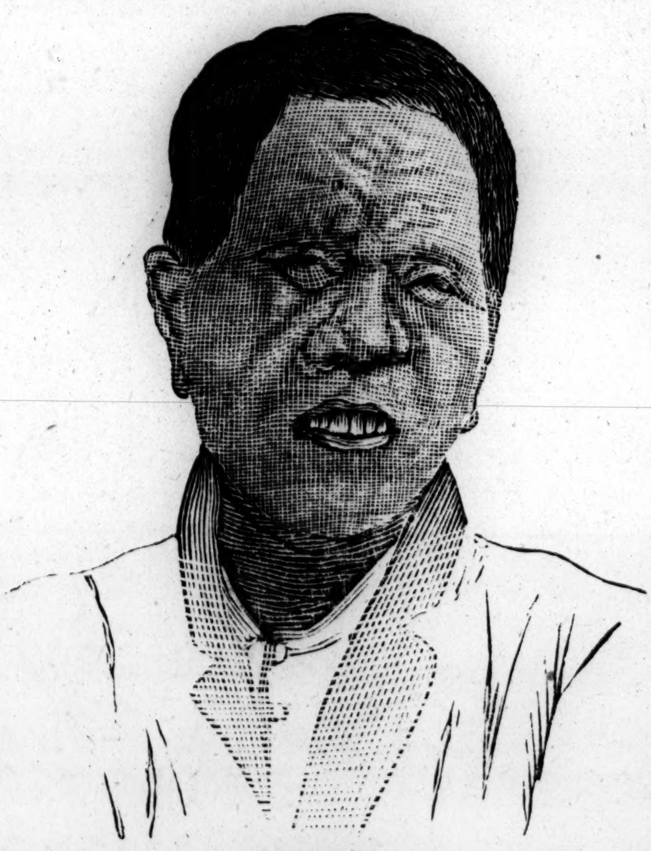


DAVID.

In about six or eight weeks Keanu had fully recovered, and as he was a prisoner, he was expected to do some work about the hospital yard. I here formed the opinion that he was a good natured, industrious and honest man; an opinion I have never since had reason to change. Scarcely a day passes that I do not see and talk with him, and I have repeatedly treated him for sores on his hands—the result of work—sores on his feet, and other (to lepers) trivial complaints. Some four or five months ago he scalded his hands badly, and since that time he has been an inmate of the hospital, and although fully recovered, exempt from all work. Except that in so far that he is a leper of the tubercular type and rather advanced, he enjoys life and is comparatively free from the neuralgic pains so common amongst lepers of all types.

His present condition is as follows: Age, 70 years; weight, 178 pounds; leprous infiltration beneath integument of face and forehead; tubercular enlargement of lobes of both ears, the right more than the left; ulceration of palate, and extensive ulceration of pharynx; tubercular enlargement of uvula; tubercular enlargement of alæ of nose; partial occlusion of nasal fossæ, due to leprous infiltration beneath pituitary membrane; chronic conjunctivitis and ptyrigium-like growth on both eyes; almost deaf; voice hoarse and with a nasal inflection. Anesthesia of hands and feet, although no pronounced enlargement of ulnar or tibial nerves; numerous tubercles distributed over the entire body, but most marked on the upper and lower extremities; three small, but angry looking ulcers on outer aspect of left leg; softened tubercle on dorsum of right foot. The hands and feet have a boggy feel and pit slightly on pressure. His appetite is good, feels well and looks well, and may live long enough to die of old age.

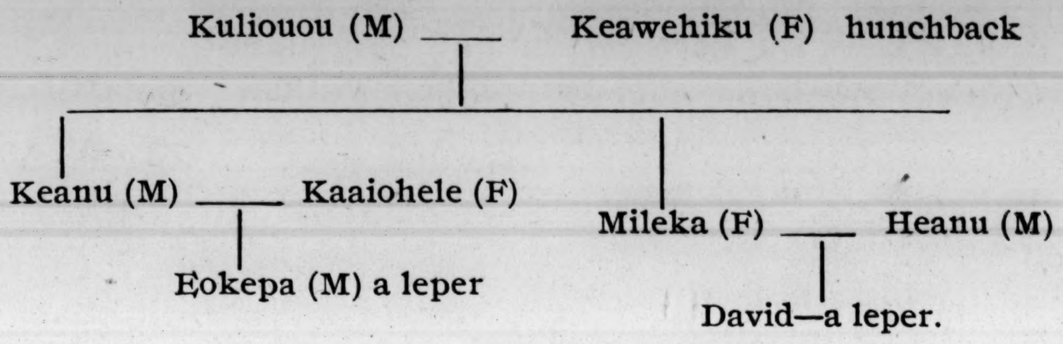
In the same ward and in the bed adjoining Keanu's is a young man named David, aged 20 years, a far advanced tubercular leper, covered with sores, almost blind, nearly deaf and utterly helpless. This young man is the son of Keanu's only sister Mileka, now deceased. Upon him Keanu bestows the most assiduous care.

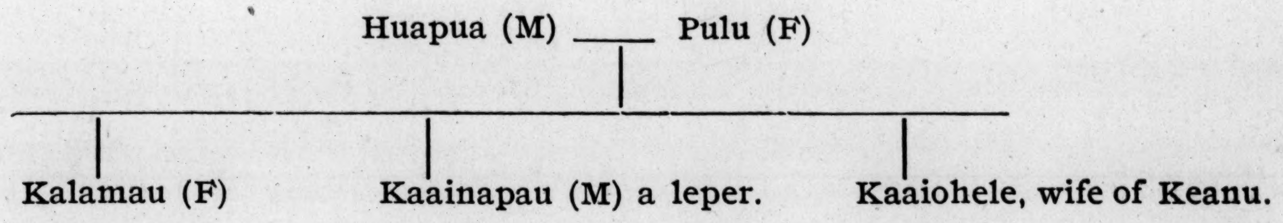


EOKEPA.

Nor is this Keanu's only relative, his own son Eokepa, aged about 23 years, and his first cousin Maleka, on his mother's side, are both lepers and reside at this place at this date. Eokepa has been a leper since 1873, leaving school in that year on account of the disease. Keanu's brother-in-law, Kaainapau, died a tubercular leper at Kalawao, in 1885, and his (Keanu's) mother, Keawehiku, was a hunchback.

The following tables give the pedigrees of the family:





It would therefore seem that there is a family history of leprosy, Dr. Arning's statement to the contrary notwithstanding. Even if there was an absence of such a history or the absence of the fact of Keanu ever having lived in a community where leprosy was prevalent; still there was an exposure in the fact that for the first three months of his incarceration in the jail at Honolulu, he was in charge of a turnkey named Malaihi, who is a leper at this place, at this date, and according to the latter's statement has been a leper for 20 years. Of so little import (in my mind) is Dr. Arning's inoculation, that I attribute fully as much to the possibility of Keanu contracting the disease from the turnkey.

But supposing that the inoculation did propagate the disease in Keanu, then I would say that its ravages in this case in the short space of 5 years, are such as to make it unparalleled in the history of this settlement, and contrary to what little experience I may have acquired during a continuous residence amongst a thousand lepers for nearly two years.

In October, 1889, I excised the cicatrix from Keanu's arm, and it has been submitted for microscopic examination to a pathologist of undoubted skill and recognized ability, whose report will soon appear in these columns.

I wish here to correct another error which has been going the rounds of the journals, to the effect that "Dr. Hoffman, late medical officer at Molokai, had recently fallen a victim to the disease." Dr. Hoffman never was medical officer at Molokai, nor did he ever visit the settlement professionally or otherwise. Nor was he ever an inmate of any government institution as a leper, to the best of my knowledge.

THE PHONOGRAPH IN MEDICINE.

By ALBERT ABRAMS, M. D., Lecturer on Pathology and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, California.

A few years have elapsed since Edison devised an instrument consisting essentially of a mounted diaphragm, so fixed as to operate a stylus which recorded the inflections of the voice on tin foil. With this crude apparatus, which sacrificed distinctness of articulation in order to secure a loud tone, not only was sound recorded, but reproduced. Attention has of late again been directed to an improved phonograph, embodying the same principles as the original instrument, but so modified as to be of practical value. It is now but a few months since the untiring Edison, dissatisfied with his previous achievements, added further improvements to the phonograph, making it now automatically adjustable and combining the recorder and reproducer in one. The perfected phonograph requires no dexterity in manipulation, and I will briefly describe the method of taking a phonogram with it:

To record sound, a wax cylinder is fitted on to a metal one. The diaphragm, which is automatically adjustable, is then made to rest on the wax and the instrument is ready for use; on speaking into a tube, which is in communication with the diaphragm, the sound pulsations are incised by means of a small point in the noiselessly revolving cylinders. Upon examining the wax cylinder, a number of fine lines can be seen, which are an absolute equivalent for the sounds made by the voice. All that is necessary to reproduce the sounds is to move a lever, when another self-adjustable point is presented, which passes over the indications in the wax made by the recording needle, and absolute reproduction of the voice, even to the lightest shades and variations results. This may be repeated an indefinite number of times. The wax cylinders cost twenty-five cents apiece, making phonograms for permanent record very expensive. This objection will soon be obviated, as mailable cylinders, costing but a few cents and available for single records, are to be introduced.

To run the machine, either an electric motor or foot power may be used. I use the latter, as the instrument is under better control: An electric motor, however, possesses the advantage of rendering the revolutions of the wax cylinder almost noiseless—an indispensible factor in the reproduction of fine sounds. The accurate reproduction of the human voice, is well illustrated by the following occurrence: A lady on hearing the words of a gentleman, spoken into my instrument but a few days before, at once exclaimed: "I know that voice! It is the voice of Mr. H——." I asked her if she knew the gentleman and she replied in the negative, but she had heard him recite once at an entertainment many months before. Here is an instance of how unerring is the memory for sounds.

I have employed the phonograph in taking the histories of cases, thus saving time and obtaining copious notes. The cylinders can be transcribed at the convenience of the amanuensis. This is but one of the many practical uses to which it may be put. In physical diagnosis the application of the phonograph suggests itself, and it is claimed, that in the laboratory of Edison, the normal heart sounds were first successfully recorded. Its practical value in medicine was tested by the Paris Academy of Sciences and the Vienna Medical Society, with results largely in favor of the instrument. Dr. Bleyer, in an article on "The Phonograph in Physical Diagnosis" says that by means of a microphonic stethoscope, he was enabled to record all the thoracic sounds in their varied pitch and tone. The sounds thus obtained were projected by means of a tin cylinder acting as a resonator and directly instructed a large class of students. I must confess, that similar experiments faithfully executed with all due regard to details, were unattended by these results. I found in my investigations, which were varied in every possible manner, that the recording of heart sounds was practically impossible. The fault rests with the phonograph. There is no question about the sensitiveness of the diaphragm for recording even the feeblest sounds, but the difficulty lies in reproduction. Even loud sounds emanating from the chest are with difficulty detected by an ear accustomed to the phonograph. When the reproducing needle is adjusted to the revolving wax cylinder a hissing sound is heard, the result of friction between the needle and the wax. It is this sound which interferes with proper reproduction and I have found, that lubricating the cylinder renders reproduction decidedly more distinct. If this objection were obviated, the phonograph would prove an ideal instrument in physical diagnosis.

Many sounds heretofore inappreciable can be brought out by the phonograph. The deepest tone that we are able to appreciate contains 16 vibrations a second; the phonograph will record 10 vibrations or less, and can then raise the pitch until we hear a reproduction from them. Similarly, vibrations above the highest rate audible to the ear can be recorded and then reproduced by lowering the pitch. I have been able to record nearly all the percussion sounds of sufficient intensity, and with a degree of distinctness which is remarkable. The percussion sounds obtained in this way are exaggerated, and the method resembles auscultatory percussion. The fine lines which can be seen on the wax cylinder after talking into the phonograph convey a fair idea of the number and variety of air waves necessary to the production of words and sentences.

In clinical medicine the uses of the phonograph are varied. The different anomalies of speech, whether due to paresis, paralysis, tremor, spasm, or even ataxia of the muscles of articulation, can be faithfully recorded. Coughs of various kinds will also receive accurate registration.

Determining the sense of hearing is of great importance to the aurist, and the present apparatus for this purpose is unsatisfactory. Roosa, in his text book, refers to the characteristic answer of a boy who, upon being tested by the ticking of a watch, suddenly exclaimed: "What do I care about hearing a watch? I want to hear what people say!" Dr. Lichtwitz, in a recent article on "The Phonograph in Otology and Laryngology," considers the following as essential to an apparatus for ascertaining the perception of sound: (1) It should produce all the tones and murmurs appreciated by a normal ear, and especially speech in all its inflections. (2) It should be a constant sound producer. (3) It should be an universal apparatus, so that otologists in different countries can express themselves definitely regarding the acuteness of hearing, as ophthalmologists do in testing vision. (4) Its use should be unaccompanied by inconvenience. (5) It should allow of the perception of sound by bone and air conduction. The phonograph, according to this author, absolutely subserves the first two indications, and is the best apparatus for determining the sense of hearing.

Of all the wonderful accomplishments possessed by the phonograph, its availability for the blind, by placing them in communication with the world of literature, far exceeds any similar device for the relief of this unfortunate class. By the majority of those whose eyesight is impaired or destroyed it will be hailed as a veritable God-send. Each wax cylinder will receive from 800 to

1,000 words, and the whole of "Nicholas Nickleby" can be put on four cylinders eight inches long with a diameter of five. By a mechanical process, these cylinders can be multiple-copied, which will render them comparatively inexpensive. For educational purposes, as in the study of foreign languages, which to physicians is often a necessity, the phonograph is beyond comparison, for no system of phonetic spelling or verbal description will convey the same pronunciation of a foreign language so well as a machine that reproduces the human voice.

The phonograph is not without a therapeutic use. The psychic influence of sound cannot be denied, and we need only recall the well known effects of enlivening music in cheering troops on the march or while under the depressing influence of siege, and the profound influence of certain music in exciting the highest emotional centres. When music, and good music at that, can be had "on tap," and supplemented by stories, songs and recitations by well known authors, vocalists and elocutionists, the convalescent may command a variety of entertainment.

433 Geary street.

AN OBSTETRICAL EMERGENCY.

By N. S. GIBERSON, M. D., Carlisle, N. M.

At two o'clock on the 10th of November, 1889, I received a hurried and almost illegible scrawl which was brought me by a boy, who had come about thirty miles so furiously that his horse was ridden down and covered with foam, although the temperature was so low that the snow was falling. I could only gather from the writing that a woman had been in labor since midnight of the day previous, and that the child was partially born, and had been in that condition for many hours. From the boy, who was heavily charged with the sullen taciturnity that characterizes the children of these remote mountains, I could glean absolutely nothing. I provided myself with everything necessary, and after securing a fresh horse for my guide, we started out in the teeth of a blinding snow storm. We struggled against it for six weary hours, and then entered the shade of a dense pine forest, which protected us from the blast for the rest of the trip.

We arrived, chilled to the bone, and neither of us could use our lower limbs for half an hour, until we had been thawed out before the fire. But during that half hour my observing powers were busy enough to compensate in great measure for the torpidity of my lower extremities. Two women were present. One of them informed me that she was a nurse, and that she had been called at eleven, the previous night, to see Mrs. B———, who was then in the active pains of labor. She found the legs of a fetus protruding, and "leaving nature to take its course," soon found that the little one was entirely extruded except its head. Now, she was completely nonplussed; her science was utterly at fault, and while she was cudgelling her brains for an expedient, the patient had a frightful pain, and cried out that she was "bursting open." The now thoroughly frightened midwife threw back the cover, and to her dismay found protruding from beneath the shoulders of the first child—the head of another! Then she sat down and cried, and posted the frantic husband after help.

The sufferer had ceased to be demonstrative by this time, and the only evidence she gave of pain was an occasional moan, or gasp for water. They had given her a liberal quantity of whiskey during the day, and the stimulant had undoubtedly prolonged her life. Her pulse was thready and her features hippocratic; to the knees her limbs were fairly stony, and everything bade me make haste. I found the situation precisely as the old woman had stated it. The upper portion of the vulva was occupied by the neck of a female child, whose chin was securely hooked behind the pubic arch, and whose entire body protruded with that ghastly pallor which is so characteristic of fetal bodies that have perished from compression of the cord. Directly beneath it was a head, purple with pressure, and these two were hopelessly interlocked. The protruding body had macerated slightly, and was of about six or seven pounds weight. The lower head was evidently much larger than the imprisoned head. This was the situation, and I was a hundred miles away from help, in the midst of a snowstorm on the summit of the Rocky Mountains. This woman was deformed by what the books call an "excess of amplitude." Had her bony canals been of the normal size, the second child could never have sunk so low in the pelvis, while the other head remained in limbo.

I tried to loosen the female head, but although a certain amount of softening had ensued, I could not budge it without producing a degree of strain that might have ruptured the bladder. I then resolved on a plan which seemed to promise a solution of the difficulty. My idea was to stretch the neck of the lower child (break it if necessary), so that the upper fetal head could be made to pass between the breast and chin; failing in that, I proposed to decapitate the lower child, push the trunk back, and then deliver the upper one, after which the ordinary podalic operation would serve for the deliverance of the torso. I anesthetized the woman with the "A.C.E." mixture, and when she had become thoroughly unconscious, gave her a hypodermic injection of a mixture of ether and ergot, and turned her on her belly. I then grasped the head with both hands and made steady pressure upon it, as strongly as I dared for a minute, and had the satisfaction of noting that the neek had elongated materially. Then I grasped the female, and succeeded in partially unhooking the chin, and turning it sidewise with the face looking towards the mother's left. But it was still too large to pass, and I tried the remaining expedient which lay before decapitation. The unborn head was surrounded with the jaws of the cephalotribe, and speedily crushed until the parietal bones overlapped, and the bulk of the encephalon was flattened nearly one-half. After that I had but little difficulty. Careful manipulation delivered the head, and the lower twin almost fell out when the obstruction was removed. The placenta was double, and had long been collapsed ; its extrusion was followed by a dismal rush of blood; but this contingency had been anticipated, and after grasping the uterus firmly and fruitlessly for a few seconds through the abdominal parieties, I thrust the long point of a Davidson syringe into the womb, and injected half a gallon of hot water, so hot that it was difficult to keep hold of the metallic point. This ended the hemorrhage, and in half an hour the organ contracted promptly, and my work for the night was done.

The following day I was obliged to catheterize the patient, and to give her a large dose of morphine, but that was all. For the next week she had an injection of corrosive sublimate twice daily, and made a good recovery. The two babies weighed fourteen pounds, and were well formed in every respect. I had never conceived it possible for this accident to take place, and even now, it can only be explained on the theory of an enormous pelvis. The woman had three living children, and had never experienced the slightest difficulty in giving birth to either of them. She was in perfect health, and had she received the most ordinary skilled assistance in time, two human lives would not have been sacrificed.

ASPIRATION AND ANTISEPTIC IRRIGATION OF THE KNEE JOINT.

By Thos. W. Huntington, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

Chronic synovitis of the knee joint with effusion, under various methods of treatment, has in many instances been attended by results quite unsatisfactory both to the profession and to the patient. Counter irritation by iodine, blisters and other agents, compression, rest in bed and various schemes, have been adopted to meet the exigencies of these cases. Acute forms of the disease, especially those resulting from traumatisms, are, in a certain proportion of cases, amenable to the foregoing measures, but all surgeons now and then have exhausted their skill and patience and left the subjects little if any the better for their pains. The tendency in many instances is for the disease to become chronic. An effusion once established persists and there seems to be an inability on the part of joint structures to carry away the offending fluid. As a consequence, the joint becomes enfeebled and flaccid from long continued tension; articular surfaces gradually undergo structural change; there is much pain and discomfort to the patient; movements of the joint are impeded and its integrity more or less permanently impaired. Finally, constant irritation results in suppuration and total destruction of the articulation, conditions which render imperative, erasion, excision, or amputation.

What is true of synovitis as a result of traumatism has greater weight in dealing with tuberculous synovitis. Here, although the conditions are somewhat different, disastrous consequences are realized with far greater certainty. While it is true that absolute rest during the earlier stages of tubercular joint affections may prevent progress and perfect a cure, as asserted by Howard Marsh, unfortunately resort to this measure is not had at the proper time in a large proportion of cases. As a matter of fact the attention of patients themselves is not forcibly called to the probability of danger until they have passed beyond the point where rest as a curative means is in any sense available. In dealing with the later stages of chronic synovitis of the knee joint where partial or extensive disintegration of tissues has taken place, three alternatives are offered as a source of relief: (1) Amputation; (2) Excision; (3) Arthrectomy or, according to later nomenclature, erasion.

The first is of course out of the question, except in those cases where not only the function of the joint, but the usefulness of the limb is wholly destroyed, and where danger to life is imminent. Between the two latter methods, a marked difference of opinion exists as to the better course. Excision and erasion each have their champions, equally respectable, and alike claiming that their own special procedure offers the greatest immunity from danger, and likelihood of radical cure. The weight ot evidence, however, goes to show that early excision obviates the necessity of later amputation; that an earlier erasion is productive of more rapid recovery with greater utility as a final result.

Later contributions to the treatment of chronic arthritis, either traumatic or tuberculous, furnish material for inference that each of these three alternatives may be superceded by the method known as antiseptic aspiration and irrigation. My attention was especially directed to this subject in May last by Dr. Maurice H. Richardson's report of a series of cases successfully treated at the Massachusetts General Hospital. As the operation described by Dr. Richardson has but recently come into use in this country, the following report of cases may be of interest:

Case I.—Mrs. A. G——, age 40, housewife, was referred to me in July, 1889, by Dr. W. A. Briggs, of this city, with the following history: Several years ago had suffered from a chronic abscess, located in the muscles of the back. This, under the usual treatment, was cured. Six years ago left knee was injured by a fall; joint remained slightly sensitive for two years, then began to enlarge perceptibly and became painful. Condition of joint has gradually grown worse. On examination, knee found to be tender and distended with fluid; locomotion impaired and movements imperfect. July 9th, assisted by Drs. W. A. Briggs and G. B. Somers, I aspirated the joint, removing two ounces of slightly turbid serum; I then injected the same amount of a five per cent. solution of carbolic acid, which in turn was reëxhausted. The limb was then placed upon a posterior splint and slight pressure applied over the patella. On the following day there was slight elevation of temperature and considerable joint pain, the latter being relieved by removal of the pressure. On exposure of the part the articulation was found to have refilled with fluid. The splint was readjusted and by the second day the temperature was normal; no pain or discomfort. On the seventh day the fluid in the joint had almost disappeared, and at the end of the second week no fluid could be detected. The splint was removed, a plaster of Paris dressing applied, and patient allowed to go about on crutches. At the end of the fourth week the plaster dressing was removed. Movement of the joint, though slightly impaired, was painless. September 1st, eight weeks after the operation, patient was discharged well. At this time she could walk without crutches, and with a barely perceptible limp, the latter being due probably to protracted distension of the joint tissues. Patient was seen February 12th, and there has been no tendency up to the present time to relapse.

Case II.—J. T——, age 49, carpenter. On May 5, 1889, left knee was injured by a blow from a bar of iron, causing pain and swelling. Resumed work almost immediately, but as symptoms persisted, I was consulted July 12, 1889, about two months after receipt of injury. Treatment by rest, blisters and pressure was recommended, but without avail. Accordingly, on July 19th, I proceeded to aspirate and irrigate the joint, as in the preceding case. The following day the knee was greatly swollen and somewhat tender; from this time, however, the symptoms rapidly subsided. August 10th.—Dressings were removed and excess of joint fluid found to have disappeared. There was, however, considerable stiffness, requiring repeated efforts by passive motion for its relief. September 10th.—Patient discharged and resumed work. At this time the movements of the joint were perfect and size of limb normal. Up to February 10th, no tendency to relapse has been shown.

Case III.—T. F——, age 41, machinist. For eleven years has suffered, at varying intervals, from a painful affection of the left knee, which, during most of this period, has been slightly enlarged. On May 24, 1889, he fell from a horse, striking on the affected knee, causing a return of former trouble. June 3d.—Fluctuation in joint was apparent, accompanied by great pain, tenderness and heat. Resort was at once had to treatment by the irrigation method. About two ounces of bloody, sero-purulent fluid was withdrawn, and the joint thoroughly irrigated with a 3 per cent. carbolic acid solution. The case proceeded favorably, and at the end of a week no fluid could be detected. At the end of the second week, patient was allowed to go about on crutches. At the end of the fourth week there occurred a partial relapse, and the operation was repeated, the irrigation fluid employed being a five per cent carbolic acid solution. Subsequent to this there was no impediment to recovery, and the patient was discharged cured July 26, 1889. Function of joint unimpaired and locomotion perfect.

Case IV.—J. D. H——, age 52, railroad conductor. About sixteen months ago fell and injured left knee, since which time it has been noticeably enlarged and at times painful. On examination, joint found to be greatly distended, partially flexed, immovable, hot and painful. Fearing that suppuration was imminent I immediately resorted to treatment by aspiration and irrigation, as in the foregoing cases. Strength of irrigation fluid, three per cent. Amount of fluid removed, three and one half ounces. Microscopic examination revealed numerous pus cells and confirmed the early suspicion of impending suppurative disease. The following day, although the joint cavity had partially refilled, pain and heat had subsided and patient was resting comfortably. A plaster dressing was applied on January 2, 1890; this was removed February 17th. Owing to the urgency of the symptoms in this case, prolonged rest has been prescribed and the patient will be kept confined to his room several weeks longer. There is no excess of joint fluid and no symptoms tending to the discomfort of the patient.

Case V.—E. J. R——, age 17, machinist. About one year ago fell and injured left knee, which has been weak ever since. Five days previous to consultation first noticed that it was swollen. On examination knee found to be enlarged and fluctuating. Measures 14¼ inches in circumference; sound knee 13½ inches. The joint was treated by the aspiration and irrigation method; 1½ ounces of serous fluid being removed. The limb was placed on a posterior ham splint with a slight compress over the patella, and bandaged from the toe up. December 7th, five days after operation, splint removed; no pain or tenderness in the joint and no excess of fluid could be detected. Circumference of affected knee, 13½ inches; sound knee, 13¼ inches. Patient allowed to move about the house and two days later discharged, cured. February 15th, I learn that the joint is in perfect condition.

The various steps in the operation may be described as follows: The affected limb should be subjected to a careful antiseptic bath. The point of selection for puncture is at the upper external angle of the patella as the joint covering is thinner here than elsewhere. An aspirator needle of large size should be selected to avoid clogging during the act of exhausting the injection fluid which is rendered flocculent by coagula. The John Smith aspirator is especially adapted to this purpose, it being provided with an arrangement for injection as well as for exhaust. With this apparatus the operator should become thoroughly familiar before attempting its use. The aspirator having been prepared as an exhaust pump, the needle is thrust into the joint cavity, and the fluid removed at once. The instrument is then reversed, the flask is two-thirds filled with a five per cent. carbolic acid solution, and inverted. An assistant should then hold the cork firmly in place, while the air over the fluid is condensed by working the pump. The stopcock between the flask and the knee joint is now opened, and the joint cavity is allowed to become well distended with the acid solution. A special precaution in this step is to have such an amount of solution in the flask that the latter need not be entirely emptied in filling the cavity, otherwise compressed air will be allowed to escape into the joint, which, in a measure, enhances the risk to the patient. The irrigation may be repeated two or three times, or until the return fluid is clear. The needle is then withdrawn, an antiseptic dressing applied to the puncture, and the limb laid upon a posterior splint, and bandaged lightly. On the day following the operation the joint will be found to have refilled with fluid. This, however, is gradually reabsorbed and at the expiration of from three to six weeks the limb is usually fit to use.

A few remarks upon the proper attitude of the surgeon in adopting a given line of action will be in place, as suggested by the subject chosen for discussion this evening. These comments, while but reflexes of warnings and maxims without number, from the most earnest advocates of a high standard of excellence in surgery, as regards *technique* of operation, efficiency in after treatment and the attainment of final success, have been accentuated by personal observation and emphasized by practical experience.

The rapid, almost bewildering progress in the art of surgery during the past decade, has proportionately added to the duties and responsibilities of the surgeon. Methods of procedure that were formerly suggested as a last and lamentable resort, in the light of modern pathology and with the immunity afforded by asepsis, are recognized as offering the brightest possibilities to the operator and the most perfect relief to the afflicted.

Foremost among these recently imposed duties is that of early and positive diagnosis, a necessity in every instance, but irreconcilably imperative in a very large class of pathological conditions. This fact failed of adequate appreciation, until it had become axiomatic; that it is often possible to avert disaster and save human life by a resort to operative measures in the incipiency of disease. The work of clearing away a doubt, of confirming a vague suspicion, or of demonstrating what has risen to the dignity of an opinion, has been in the main so simplified, that henceforth groping hesitancy must stand as the exponent of recklessness, incompetence or neglect. The contents of a cavity, though it be deeply seated or contiguous to important structures, are easily accessible for ocular or technical examination. Abdominal and joint incisions for purposes of exploration are of daily occurrence, and in skilled hands are devoid of risk; and fragmentary portions of abnormal growths may be chipped off, and their nature determined beyond peradventure, through the agency of the microscope. Hence it may be truly said that with these sources of information, reinforced by the ordinary methods of physical examination, the judgment of the modern surgeon may be, and in a fair proportion of cases should be, infallible.

But an early diagnosis, be it an evidence of never so much dexterity and acuteness on the part of the observer, reflects little credit upon the profession, and offers even less measure of relief to the patient in the absence of its legitimate correlative, thoroughgoing and rational methods of treatment. Accuracy, promptitude and courage are the requisites of the present time. But little latitude is accorded the surgeon in deciding whether undue tension shall be relieved, whether a breast which is the seat of a suspicious looking growth shall be amputated, or whether a herniotomy or a laparotomy shall be undertaken in hope of averting impending peril. In these, as in nearly every exigency requiring operative interference, the words of Lawson Tait should be kept well in mind: ''Early operations mean successful operations.'' In fact the policy of former years has been reversed and the injunction to proceed at once and radically is an accredited surgical aphorism.

Nor is it in operative cases alone that promptness is an efficient weapon in the surgeon's hands. For example, a large number of joint affections, whether traumatic, tuberculous or specific, are thoroughly amenable to appropriate measures, if skilfully and persistently employed. Here he will find a field for display, not only of his skill, but of his conscientious devotion to duty, and to this point attention cannot be directed with too much emphasis. To paint, or poultice, or blister a joint, which is the suspected seat of progressive disease, as a substitute for the more sensible and only rational plan of rest or extension, or of both combined, is wrong in theory, and disastrous in practice. In carrying out a correct policy in such a case, impediments will often be encountered. Be they in the shape of unreasonable and unyielding objections on the part of patient or friends who ignorantly plead for delay or temporizing treatment, withdrawal from the case, positive and unconditional, is an open avenue of escape from responsibility. But if poverty be the obstacle, and the already overburdened practitioner feels that he can ill afford the demand for unrequited time and labor, the situation is quite different, though not hopeless. Such cases rightly belong to the proper institutions, or to the younger, less busy and perhaps more ambitious members of the profession, and to these they may properly be consigned.

A tolerably fair index to the quality of work that may be expected from an operator, is to be found in the completeness of his preparation when approaching any undertaking. Perfect system in the arrangement of preliminaries is a leading factor in the economy of energy, patience and time, and what is even more important, contributes greatly to the comfort and safety of the patient. Too frequently there is observed neglect of these steps, that to say the least, is discreditable. At a critical period in an operation absence of an essential instrument or appliance occasions an embarassing delay, or necessitates the employment of an inferior article. A common illustration of this error is the omission of drainage tubing from the surgeon's outfit. The usual makeshift is a gum elastic catheter, which in point of size and antiseptic preparation, is more than probably illy adapted and wholly unsafe for use. Again, a bed, soiled and disarranged, has been used as a ghastly substitute for a suitable operating table. To one who has used, and who therefore appreciates the value of a thoroughly equipped irrigator, it is amazing that this simple, yet invaluable contrivance is not more generally employed. It is difficult to conceive of more unmistakable evidence of slovenliness on the part of an operator, than the presence of a hand-bowl with its contents of bloody opaque fluid, to which resort is had in the sponging of a wound. The fluid at the outset may have been aseptic or antiseptic, but after one or two rinsings of a sponge, it will completely have lost its identity as such. In consequence of careless indifference to details, an operation has now and then gone wrong, has fallen short of perfect success, or failed deplorably, and anticipated triumphs have found fruition in calamity.

The special features of recent operative methods are designated, in the main, by two words—cleanliness and thoroughness. The former suggests all the safeguards of asepsis and antisepsis. Championière closes a report of four hundred and sixty-three successful capital operations, done under most unfavorable surroundings, in sheds and barracks, with these significant words: "Splendor of means and luxury of antiseptic material are of little moment, while the surgeon's faith in the antiseptic method is the whole of it." The latter, however, in this connection is infinitely more complex and comprehensive. Thoroughness exacts unwearying zeal and absolute singleness of purpose in the attainment of an end. It implies precision, painstaking, patience. It absolves the operator from restraint and begets boldness, which is curbed only by sound judgment. It sacrifices brilliancy to efficiency, rapidity of execution to the veriest plodding in the interest of accuracy and completeness. Independent of professional attainment, special skill and wide experience, which must ever remain variable quantities, the presence or absence of these attributes determines beyond question the value of the personal equation, a most important factor in the estimation of risk attending an operation. Says Mr. Keetley: "Let us never forget to distinguish between the dangers of an operation, and of the particular operator who does it." Certain it is that he who fails to recognize the intimate relation which scrupulous cleanliness and conscientious thoroughness bear to success in the practice of surgery, has grossly misinterpreted the spirit and teaching of his age.

426½ J street.

A CASE OF FRACTURE OF THE SKULL—IMMEDIATE OPERATION—RECOVERY.

By H. W. YEMANS, M. D., Police Surgeon, Receiving Hospital, San Francisco, Cal. Late U. S. Marine Hospital Service.

On the 2d of April, 1888, Mrs. L——, while crossing D street, San Diego, Cal., was knocked down by a runaway horse attached to a buggy, receiving a fracture of the skull. She was picked up in an unconscious condition and carried into a neighboring drug store, where I saw her within the course of a few moments, with Dr. E. C. Thatcher (since deceased).

A cursory examination failed to reveal any external injury. Without further delay she was taken to her residence, but a short distance away, where a more careful examination revealed a rapidly forming tumor just above the right eye, beneath which irregularity of the bone could be detected. There was no abrasion of the skin at this place and no indication of injury to any other part could be discovered. As the swelling of the injured part progressed, sterterous breathing developed, so it was determined to relieve the pressure if possible—at any rate to make an exploratory operation.

As soon as practicable an incision was made beginning at the right eye-brow, about an inch external to the median line, extending in a curved direction upwards, outwards and backwards over the frontal eminence nearly to the temporal ridge. The periosteum was included in the flap. As the patient was unconscious no anesthetic was used. Upon reaching the skull a fracture of the frontal bone, just above the orbit, was discovered, about the edges of which there was considerable clotted blood. Hemorrhage was slight and easily controlled. The fracture was as follows: Beginning at the supra-orbital foramen the main break ran upwards, outwards and backwards and was lost in the coronal suture at the temporal ridge. From this several smaller fissures branched, the largest running at almost right angles from just below the frontal eminence to the orbital cavity. Included between these fractures was a loose, easily detached, triangular piece of bone which had been broken from the orbital plate of the frontal, just posterior to the orbital arch. This fragment was about three-quarters of an inch on all three sides and was somewhat depressed beneath the other portions of the bone. As it was almost entirely free, it was removed. Beneath it was a large clot, but the membranes appeared uninjured. There were no signs of depression along the main and minor fractures, so after thoroughly cleansing the cavity the flaps were brought together by deep and superficial sutures, the lower anterior angle being left open for drainage.

The entire operation was completed within one hour after the receipt of the injury. Thorough antiseptic precautions were observed throughout. Consciousness gradually returned and healing progressed uninterruptedly, resulting in full and complete recovery. At present all that can be detected is a small, slightly depressed cicatrix over the site of the hiatus left by the removal of the fragment of the frontal bone. There is no subjective symptom remaining beyond a slight diplopia, due, I think, to injury of the superior rectus.

While in a certain sense this case is of no more than ordinary interest, still I consider the lesson it teaches so valuable as to warrant its publication.

219 Geary street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M. D., Sacramento, Cal.

Sclerema and Edema Neonatorum—Clinical Features.—In both sclerema neonatorum and edema neonatorum the patients are weakly, often prematurely born, and in both diseases the body temperature rapidly falls below the normal. In sclerema the peculiar condition of the skin and subcutaneous tissue is found most markedly on the back shoulders and thighs, while in edema the area of distribution corresponds with the lower part of the abdomen, the genital organs, the back and legs. In sclerema the skin is firm and tense, cannot be raised in folds, and does not pit on pressure; in edema, on the other hand, the skin is soft and boggy, can be pinched up between the fingers, and pits readily on pressure. *Etiology:*—Very little is known concerning the etiology of sclerema. The disease occurs usually in prematurely born and weakly infants, which have been placed under bad hygienic conditions as to food, clothing, etc. It is, therefore, easy to understand why illegitimate foundlings are especially liable to it. It is most common in the winter months; but it is a rare disease in this country at any time of the year. It may occur in syphilitic infants, but any direct connection between the two diseases remains to be proved. With regard to edema it may be said that in many points the etiology is similar to that of sclerema. It occurs also in premature infants placed under bad hygienic conditions, and most probably cold has a powerful effect in leading to the renal, cardiac and pulmonary states, which are so often associated with it. *Diagnosis:*—If attention be paid to the clinical features which have been enumerated, the diagnosis between sclerema and edema ought not to be difficult. The possibility of sclerema being mistaken for tetanus neonatorum is not very great, for the rigidity of the limbs is never so great in the former, and the temperature curve in the latter will also serve to distinguish the two diseases. Edema and erysipelas might possibly be mistaken for one another, and indeed edema may occur during the course of erysipelas; but here also the condition of the temperature will serve as a diagnostic guide. From syphilitic roseola, edema may be quickly differentiated by the result of anti-syphilitic treatment. It is possible that edema neonatorum and general dropsy of the fetus may be confounded; but the confusion is more likely to arise in medical literature than in medical practice. General dropsy is a disease of the fetus, not of the infant. The observations of Smith and Birmingham, seem to show that it is due to absence of the thoracic duct, and of the lymphatics of the mesentery and skin. *Prognosis:*—The prognosis is grave in both diseases, very few scleremic or edemic infants recovering; but occasionally a case of recovery is reported in the medical papers. *Treatment:*—In both diseases the infant affected should be placed in an incubator. Friction with a stimulating liniment is indicated, as is also "*gavage.*" In cases of edema where there is suppression of the urine, it would be well to try the effect of digitalis fomentations to the loins, and of diuretics internally. In conclusion the hope may be expressed that with a fuller knowledge of the physiology and pathology of the new-born infant, these two diseases, at present so fatal, may become more amenable to treatment. At the same time it is well to remember that probably the diseased process is in both affections initiated *in utero.—British Medical Journal*, February 22, 1890.

Prevention and Treatment of Puerperal Fever.—DR. EDWARD DAVIS believes that the substances causing puerperal fever are most often brought into the body through some wounded surface at the time of labor. Syphilitic disease of fetus and mother, resulting in fetal death, and abortion and cancer may produce ferments which may be absorbed at labor, causing puerperal fever. So may the gonorrheal virus. But puerperal fever in the woman who comes healthy to labor is the result of contagion from without. The prevention of puerperal fever then consists in the prevention of syphilitic and gonorrheal infection before labor; in the destruction of the poisonous products of such infections, and in shielding the parturient from septic poison at and after labor. In syphilis, abortion should be prevented by constitutional treatment; lesions of the vagina and cervix should be healed by applications of iodine and carbolic acid (tr. iodine, carbolic acid dissolved in glycerine, 1:4). The vagina should be washed twice daily with bichloride of mercury 1:3000, and afterwards one or two drachms of iodoform or boric acid powder should be deposited in the vagina and left there. After the vaginal lesions are healed an injection of bichloride solution (1:5000) may be taken daily until labor sets in. Gonorrhea should be treated with bichloride injections 1:3000 until the acute stage is passed, when the ratio may be reduced to 1:5000, or creolin (1.5 to 3:100) may be substituted until definite cure is made. Either iodoform or boric acid should be used as in syphilis. When possible the external genitals of the parturient should be thoroughly cleansed with soap and water, and disinfected with bichloride solution 1:4000 at the beginning of labor. The instruments and the hands of all those touching the patient should be likewise cleaned and disinfected—for the hands, bichloride 1:2000 or 3:000; rubber appliances, 1:1000; metal instruments, carbolic acid 5:100 or creolin 3:100, or by boiling, or by passing through the flame of an alcohol lamp. In the conduct of labor the finger should enter the vagina as rarely as possible—the hand each time being previously washed in bichloride. The finger should be kept out of the rectum and should avoid its discharges. The placenta should be delivered by expression. After completion of normal labor one thorough vaginal douche of bichloride 1:5000 may be given. After instrumental or manual delivery, or the delivery of a syphilitic or dead fetus, both vagina and uterus should be washed out with some solution. Tears which need repair should be closed at once. Fissures and small tears should be dusted with salicylic acid and starch 1:5, or with boric acid powder. Every twelve hours the external genitals should be washed with bichloride 1:5000. The lochia should be received on clean old linen or on oakum pads, and burned as soon as removed. Puerperal fever is practically of two kinds: one in which the poison is directly absorbed by the uterine circulation at labor; the other in which it is absorbed from the vagina, through the lymphatics. The latter is the more frequent. It is to be treated by touching vaginal ulcers with iodine and carbolic acid; by vaginal injections of bichloride 1:5000, or of creolin, 1.5:100, every six hours. After the douche, iodoform or boric acid should be freely sprinkled in the vagina. Abdominal pain is best relieved by turpentine stupes followed by dry heat. Intestinal elimination should be prompt and thorough; 5 grains of calomel with soda at night, followed by a saline in the morning. Food should be liquid, easily digested and abundant. Alcohol may be given freely. Quinine, 5 grains, or sodium salicylate, 20 grains, three times daily is useful. Large doses of opium and of antipyretics should be avoided. If symptoms persist after 48 hours of such treatment the uterine cavity must be disinfected. After a vaginal douche, through an ordinary tube if the cervix is patulous, or, through an intrauterine catheter, if not, one quart of creolin 1:100, thymol 1:1000, of boric acid in saturated solution, of alcohol and water 1:3, or bichloride 1:8000 or 10,000 should be allowed to pass into the uterus, the return flow being carefully watched. The fountain syringe should be raised three feet above the bed. These injections may be made twice daily. If the lochia continue foul the use of a large bladed dull curette is indicated—thoroughly used so as not to need to be used again, and followed by an iodoform suppository in the uterus. After the faithful use of intrauterine injections for a few days, their continuance is of doubtful utility. Vaginal douches should continue and the treatment directed to the existing pyemia or septicemia. Pyemic abscesses, when external, should be opened, drained and disinfected. For debility and fever, alcohol should be pushed to the verge of intoxication. It is the only antiseptic which can be used internally with safety—one or two pints of brandy with wine in abundance has been given with advantage. Temperature should be reduced by sponging, by packs, or by graduated baths—rarely by antipyretics. Quinine should be continued, or sodium salicylate (10 grains three times daily if they do not disturb the stomach). Faithfully treated on these principles 70 per cent. of puerperal fever cases have recovered in the hands of those who have most thoroughly studied the subject.—*Medical News*, February 22, 1890.

SURGERY.

By T. W. Huntington, B. A., M. D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal., and

J. F. Morse, M. D., Surgeon German Hospital, San Francisco, Cal.

Anthrax.—"Anthrax," "Charbon," "Wool Sorters' Disease," "Splenic Fever," and "Malignant Pustule," are all names for the same disease. Anthrax and splenic fever are used almost solely in reference to animals. In the human subject the disease begins from local contagion, and by the formation of a pustule. If this pustule be freely cut out the patient is saved. Hence the great importance of prompt diagnosis, since the disease is fatal if it is allowed to infect the blood. The bacillus anthracis is found in the blood. It is seen as short rods, a little longer than the width of a red corpuscle. As the disease advances the rods assume the form of long filaments. They multiply with enormous rapidity. It chiefly affects oxen, but almost all animals are liable to suffer, pigs, perhaps, excepted. It appears to be connected in animals with malaria, but is very contagious. In man it results only from contagion from animals. —Jonathan Hutchinson, in *Archives of Surgery.*

On Amputations.—The best method of amputation for general use is by oval skin flaps and a circular sweep through the muscles. The old circular method is tedious in performance, requires much painstaking, and may easily be so done as to leave too little covering. Transfixion flaps are liable to subsequent hemorrhage, as small vessels may have been divided close to the main trunk. This method also makes very large cut surfaces. In a "Teale," the front flap is square; its sides are equal to half the girth of the limb; the hinder flap is one-quarter the length of the long one. This makes an excellent stump, and if exactly done, the flaps are sure to fit, but it has the drawback that it sacrifices the length of the limb. "The flap—skin; circular—muscle," is applicable to almost all parts, and with modification as to the relative size of the two flaps, may be adapted to almost all cases. Under ordinary conditions, and when the two flaps can be cut of equal length, they should be one-third the girth of the limb. Hence the skin should be divided one-third the girth of the limb below the point of bone section.—JONATHAN HUTCHINSON, in *Archives of Surgery.*

Present Stage of Surgical Treatment of Tubercular Disease of Joints.—In an exhaustive article on the above subject, MR. JOHN CROFT compares the excision and anti-excision methods of treatment, arriving at the following conclusions: (1) That all deductions having been made on both sides, the rate of mortality is slightly in favor of the anti-excisionists. (2) That the possibility of the occurrence of necrosis is a reason for excision. (3) That although past statistics of excisions do not compare favorably with the statistics of well-cured cases of hip joint disease without excision, yet improved methods of operating tend to lessen the amount of shortening, and therewith this objection to operating will gradually dwindle away. (4) In duration of illness after operation the excisionists have obtained a decided advantage over the opposite side. (5) That as to risk of general infection, and risk of precipitation of general infection, the credit belongs to the side which would abolish the risk by early extirpation of the infective element. (6) The excisionist thinks that the time has come when the risk of a disease proving the opposite of a transitory one should be promptly met, and at the same time that the sufferings of the patient should be cut short. Of the arthrectomists or erasionists, Mr. Croft says: "Their fault lies in this: Tubercular disease situated at the epiphysial lines may escape them. In cases of tubercular disease limited to synovial membrane, erasion is admirably well adapted, as it meets all the requirements of the case when performed early. In advanced cases and in cases of more wide spread disease, a more radical treatment is called for."—*British Medical Journal.*

Aneurism Caused by Echinococcus of the Sheath of an Artery.—KÖHLER reports a case of axillary aneurism caused by an echinococcus in the sheath of the artery. The patient, a laborer 25 years of age, and previously healthy, on August 24, 1889, was suddenly affected while at work with double vision and a crawling sensation in his extremities. He was immediately brought to the Charité in the following condition: Loss of pulse in both radial arteries and in the left brachial; left radial and brachial felt like a hard round tube. Nothing else abnormal in circulatory system except systolic murmur in heart. Sensibility of both forearms reduced; left arm cooler than right. After several days a marked appearance of both right hand and foot was noticed, and on the left hand, gangrene of the tips of index and little fingers. Severe and persistent pains in the left arm; right arm only temporarily and slightly painful. September 9th an aneurism of the left axillary artery, the size of a pigeon's egg, was discovered, which within a week grew as large as a fist. It pushed the axillary space downward, the great pectoral muscle forward, and the latissimus dorsi backwards, extending up to the clavicle. The diagnosis of dissecting aneurism and thrombosis of brachial and radial arteries was made. The explanation of the other symptoms remained undetermined. The subclavian was tied in the usual locality and the brachial below the sac. In endeavoring to separate the latter, it was found imbedded in a soft mass, surrounded by a fibrous membrane, and was ruptured, and found to contain no clot. The patient did well. Subsequently an echinococcus cyst, the size of a walnut, was found in the sac of the aneurism. Köhler's theory is as follows: The embryo of the echinococcus cyst found its way into the vasa vasorum of the axillary artery, and was caught there, which is not at all surprising, as echinococcus cysts are found in all kinds of tissues. The connective tissue formation about the cyst takes place at the lower portion, which occurred in this instance; hence the aneurism appeared primarily in the axilla. As it grew, it ulcerated through the intima and mixed its contents with the blood of the axillary artery. This occurred on the 7th of August, when the patient was seized with double vision, etc. The cyst was not sterile, as hooklets were found hanging to its inner wall. That portion which was carried on, consisted of degenerated blood and detritus, most of which remained in the axillary region, a portion, however, being carried further, producing emboli at various points. The rapid growth of the aneurism from the 9th of September may be explained in the following manner: On the 7th of August the aneurismal sac burst, the blood forcing its way first into the sac of the echinococcus, which could, on account of its strong texture, offer for awhile, sufficient resistance. After it was loosened from its surroundings—and that it was is proved by its presence in the aneurism—the blood was enabled to escape through a relatively large opening between the coats of the vessel; in consequence of which, a very rapid growth of the aneurism was bound to follow.—*Archiv. f. Chirurgie.*

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By Wm. Ellery Briggs, M.D., Sacramento, Cal.

Intense Photophobia Cured by Direct Anesthesia of the Gasserian Ganglion.—M. Guttierez Ponce reports the case of a child 13 years old whom he had attended during last August for phlyctenular keratitis. In November the other eye became similarly afflicted. The child violently resisted all efforts to open the lids for examination of the cornea, which was quite vascular and the photophobia constant. He tried to anesthetise the Gasserian ganglion by introducing into the external auditory meatus a piece of cotton saturated with chloroform. After that the lids could be opened without the child's resistance. The cotton, moistened with chloroform, was introduced into the ear daily, and the photophobia gradually disappeared. He thinks that the external auditory meatus is a good location from which to treat ocular troubles of nerve origin.—*France Médicale*, February 7, 1890.

Ablation of the Palpebral Lachrymal Gland.—M. CHIBRET has excised the palpebral portion of the lachrymal gland twenty-eight times. This operation lessened the lachrymal secretion about four-fifths. The operation is more difficult than de Wecker has stated it to be. The elevation of the eye causes the gland to disappear, and its dissection is quite difficult, and it is essential to the good result that it be thoroughly removed. In his cases the results have been excellent. M. GALEZOWSKI was surprised that M. Chibret had performed excision so often; he had never found indications for its removal. When lachrymation persists after opening the inferior lachrymal canal and the passage of sounds, it is often because that incision was made too far outwards.—*France Médicale*, February 7, 1890.

Blindness From Babies' Sore Eyes.—Since CREDÉ has demonstrated the almost perfect immunity of the new born, treated according to his method, its great importance is being urged in all parts of the world. From a humanitarian, as well as from a politico-economical point of view, the subject demands more attention than has been given to it. In a recent address, DR. SWAN M. BURNETTE quoted some statistics taken from the reports of Fuchs, Magnas, Howe, and the Committee of the Ophthalmological Society of the United Kingdom, which bring forcibly to our minds the vast importance of more general dissemination of knowledge of the dangers arising from ophthalmia neonatorum. They show that at least thirty per cent of all blindness in Europe and in this country is caused by this preventable disease. The census of 1880 gives a total of about fifty thousand blind in the United States. Of these, at least 15 thousand have been blind from birth. There are, besides, many whose vision, while not totally lost, has been seriously impaired, and who are thereby greatly handicapped, but who have not been reported as blind. Even very serious defects of the senses are not taken account of. Laying aside for the moment all considerations of sentiment to estimate the loss to the commonwealth, it may be assumed that the minimum cost of sustenance of a single person in our best and most economically managed public institutions for the blind is $132 a year. This makes nearly $2,000,000 annually for the support of this class. But if these fifteen thousand people had not been blind, they would have been producers instead of consumers only, and their net contribution to the general fund can be taken as, at least, one dollar a day, on the average. Adding this to the cost of their maintenance, we find that the total loss to the wealth of the United States each year is about $7,500,000. And yet, this disease is well nigh absolutely preventable, and in its incipiency, easily curable. This statement is borne out by facts, as will be seen by reference to the reports of the large lying-in hospitals, where the methods of prevention have been in operation. Take, for example, the hospital at Leipsic, under the direction of Professor Credé, in which blenorrhea of the conjunctiva occurred in from seven to thirteen per cent. of all children born in the hospital during the years prior to the adoption of his preventive methods. After these means were put into operation there was practically an entire disappearance of the disease. Reports from other institutions bear equally good testimony. The method consists in wiping the face and lids clean and dry immediately after the umbilical cord is tied. The lids are then opened and one or two drops of a two per cent. solution of nitrate of silver is instilled. Except in premature children the reaction from this treatment is very slight. Hausman's method of cleansing the maternal passages with antiseptics before and during delivery is, of course, useful, but cannot take the place of the prophylactic measures applied to the organ likely to be afflicted, or perhaps already holding the germs of the disease. It has thus been clearly demonstrated that there is practically a complete prophylaxis against a disease which adds at least thirty per cent. to the total number of our blind; it follows that, if the measures were rigidly enforced, this percentage of blindness would disappear, with its attendant misery and large expense to the community. It is obvious that our first duty is to arouse our teachers and writers on obstetrics to the necessity of instructing their pupils as to the proper care of the eyes of the child from the very instant of its birth. If they are not willing to adopt what they may consider the heroic method of Credé, let them at least be instructed to wash the eyes with some antiseptic solution, and examine into their condition at each visit for at least a week. But there remains a large percentage of cases not attended by physicians, and among a class of people where the conditions for development of the disease are most favorable. Various methods of reaching these people have been suggested. The Ophthalmological Society of the United Kingdom, by a special committee, passed resolutions in 1884 which, with some modifications, are given here: (1) That purulent ophthalmia of new born infants being the cause of a vast amount of blindness, mainly because of the ignorance of the public regarding its dangerous character, and the consequent neglect to apply for timely medical aid, it is desirable to instruct those in charge of new born children by a card, in substance as follows: "*Instructions Regarding New-born Infants.*—If the child's eyelids become red and swollen, or begin to run matter within a few days after birth, it is to be taken without a day's delay to a doctor. The disease is very dangerous, and, if not at once treated, may destroy the sight of both eyes." These cards should be given to the physicians to the poor for general distribution in their respective districts, with such instructions and explanations as shall lead to a full comprehension of the danger.—*Medical Record*, February 22, 1890.

Empyema of the Antrum.—At a meeting of the Medical Society of Heidelberg, DR. A. HARTMAN reported the case of a man, 32 years old who, during August of the previous year, spat blood, and was treated for lung disease up to the beginning of this year. A nasal douche was used and the hemorrhage ceased, but was followed by a purulent nasal discharge of bad odor. It was discovered that the discharge came from the antrum of Highmore, and that the hemorrhage dated from the difficult filling of the second upper molar tooth of the same side. The patient was soon cured by extraction of the tooth, drilling from the alveolus through the jaw and repeated syringing of the cavity. Dr. Hartman thinks that in the process of filling the tooth the antrum was opened, that easily bleeding granulations sprang up at the injured point, and lastly that the use of the nasal douche caused the breaking down of the contents of the antrum.—*Centralblatt f. Chirurgie*, January 11, 1890.

SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

AND

DERMATOLOGY.

By D. W. MONTGOMERY, M. D., Professor of Pathology, University of California, San Francisco.

Injections in Acute Gonorrhea.—FRIEDHEIM says (*Archiv. f. Dermatologie u. Syphilis,*) that in the Niesser Clinic the abortive treatment is no longer practised, but the natural course of the disease is hastened. The question is not whether injections are of use, but what to inject. Of all injections used in this clinic none have proved so reliable as the Hollenstein solution, 1 to 3:4000. The injection is commenced as the beginning of treatment and regulated by microscopical observation as to the presence or absence of the gonococcus. When these have disappeared, the nitrate of silver solutions give place gradually to weak astringent lotions, such as zinc, boracic acid, and bismuth, also salicylate of mercury 1 to 2 per cent.; sulphate of thallium 5 to 7 per cent.—*Centralblatt f. Chirurgie*, Feb 1, 1890.

The Contagiousness of Leprosy.—Bergmann, who with Wachsmuth investigated and showed the undoubted presence of leprosy in Livland in the sixth decade of the present century, believed that cases occurring sometimes scattered and sometimes in groups, along the shores of the great inland seas, were the remains of the leprosy which, from ancient times, had existed in Europe. This opinion was quickly dissipated by the fact that in the short space between the years 1870 and 1884, eighty new cases were observed, and in 1884, Wellberg pointed out certain groups of lepers which sent an annually increasing number of patients to the hospitals. This, together with observations that the parents of most of the lepers were entirely free from the disease, and that the lepers acquired the disease at widely different periods of life, were facts strongly against its being hereditary. These observations render it desirable to inquire into the way the disease is spread, and to fix as exactly as possible the number of people now suffering from leprosy in this province. In 1887 Hellat published his treatise, "A Study of Leprosy in the Baltic Provinvinces," and Paulson at the same time investigated the city of Riga and its neighborhood with the disquieting result of finding that a district, which up till then had been considered free, contained a considerable number of lepers—one case occurring among the upper classes, which could only be accounted for by infection from a leprous servant. There were found to be 306 lepers in Livland in the year 1887, the whole population of the province being one and a half millions. It has been urged that so small a proportion did not justify the expense of erecting lazarettos. This objection would be valid if the disease were one of the miasmatic affections due to unhealthy conditions of the soil, or to improper diet or habits of life, or a hereditary disease; but so long as the supporters of the miasmatic theory can bring forward no proof of their position it must be held that leprosy is a contagious disease, and consequently the 300 cases scattered throughout the country form, if neglected, a very decided danger to the community. Should the opponents of these measures assert that the increase of the disease, following as a logical consequence on the idea that leprosy is contagious, has not been proven, it may be answered that the number of lepers in this present investigation may be taken as a basis on which to reckon any increase or decrease of the disease. It can, however, be said that Bergmann in 1868–69 could only find four lepers in the school district of Rujen, while now there are twenty-one cases there. In other places an increase can be seen by referring to the deaths recorded in the church registers, which show in Holmhof, for example, a tenfold increase of deaths from leprosy in the last ten years. We ought to come to some definite understanding on this matter, either to recognize the contagiousness of leprosy or put the question aside, and that, in the event of recognizing its contagiousness, we ought to say boldly whether or not measures should be taken to curb its advance. In the middle ages leprosy was universally held to be contagious, but the value of this opinion is weakened by the fact that it was not differentiated from a number of other infectious diseases, for instance from syphilis. Daniellsen and Boeckh, who in 1840 really discovered the disease again, and instituted an inquiry into its frequency in Norway, positively deny its contagiousness, and gave as causes for its spread, fish diet, uncleanly habits and inheritance. These views were reasserted in the communications of the investigating committee formed by the British Government to inquire into the frequency of leprosy in the colonies. In fact they did not venture to contradict the authority of the Norwegian authors—facts were twisted to fit the theory. The discovery of the lepra bacillus by Hansen and Neisser changed medical opinion, but still the *experimentum crucis*, the successful inoculation of the disease in the lower animals failed of accomplishment, and in addition to this the lepra bacillus could not be found in the skin lesions in the macular and anesthetic forms of the disease. Nevertheless, the fact that the invasion of the lepra bacilli takes place invariably at the periphery, working slowly towards the centre, that the uncovered parts of the body, viz: the face, the extremities, the mucous membranes of the upper air passages are the first attacked, is so marked that it must be looked upon as a point in favor of the bacillus causing the disease. The first changes in the skin consist of a peculiar corpse-like shagreening, accompanied by an increase of pigment of the hair follicles, and the formation of small-celled infiltrations around these and the sweat-glands, which afterwards become confluent, forming larger tubercles. Strange to relate no bacilli are found in these primary small-celled infiltrations, the bacilli appear first in the completed tubercles. This agrees with the fact that the hairs of the affected skin invariably fall out; the eye-brows, the eye-lashes, the beard, and the lanugo hairs of the extremities. Also in the macular form of the disease where the peculiar map-like figures appear, an atrophy of the hair follicles can be demonstrated. I should now like to bring up the question for discussion if such a mode of invasion agrees at all with our views of the miasmatic or hereditary diseases, if, on the other hand, it does not agree in a most striking way with what we know of tuberculosis, only that the virus of leprosy requires much more time, but when once fixed and growing is much more obstinate than tuberculosis. So many facts have been brought against the view that leprosy is an hereditary disease, that I think a discussion on this point almost superfluous. Of the greatest interest in deciding this question is the fact that the *potentia generandi* in man and the *facultas cœundi* in woman is lost in a comparatively early stage of the disease. We now come to the consideration of the last question, the proof of the direct transmission of the disease from individual to individual. The difficulty of such proof those will allow who limit themselves to inquiries among patients who for the most part are uneducated. But shall the facts which Leloir, in his great work on leprosy, which Bergmann, Paulson, Hellat, and Münch in Kiew have laboriously brought together, shall the sad fate of Fathers Damien and Conrady go for nothing, shall we sit stolidly by with the cry of distress of the unfortunate patients sounding in our ears merely because the experimental pathologists have not brought forward the last crucial proof of its contagiousness; while they quarrel about the pure cultivation and the specific character of the lepra bacillus? It is not our duty to found lazarettos, or by personal monetary sacrifice to push forward our ideas, but it is our duty to keep ourselves free from the reproach of working detrimentally against the health of the community by the dissemination of incorrect ideas of the nature of the disease.—PROF. E. V. WAHL, in *St. Petersburger med. Wochenschrift*, October 21, 1889.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

The Mode of Action of Diuretics.—The conditions of the renal circulation are such, that were the mechanism pointed out to one who did not know the functions of the kidneys, he might almost deduce the function of these organs. That the secretion of the watery part of the urine is mainly affected under high pressure in the Malpighian tufts, has been proved by numberless experiments since Bowman's time, and that the solids (urea, uric acid, etc.) are separated by the epithelia of the convoluted tubules, may be said to be a dictum of science. It is admitted, however, that there is still much that is obscure in the renal function. As for the character of the products that filter through the renal parenchyma, much importance has been assigned to the "intelligent" action of the epithelia lining Henle's loops; the main ingredients of the urine are believed to be selected by these cells, which, in the language of Vulpian, "separate from the blood the water and the divers soluble substances which enter into the composition of that fluid." But there is another factor which has a powerful influence on the secretion of the urine, namely, the blood pressure in the renal capillaries. Ludwig has shown that the amount of urine secreted depends very closely upon the blood pressure in the Malpighian bodies, and this pressure will depend upon the proportion of liquid in the circulation, on the force of the heart, and on the contractility of the vascular system. From repeated experiments it appears that in a given time more liquid filters into the glomerules and uriniferous tubes under high pressure than under low pressure. From what has been said, it will be seen that the most general division that we can make of diuretics is the two-fold division into: (1) Substances which, when taken into the circulation, raise the blood pressure in the kidneys; and (2) Substances which stimulate the cortical epithelium to increase of function. Of all the agents by which the urinary flow is augmented, one of the best is undoubtedly water, the free ingestion of which both raises the blood pressure in the kidneys and excites the epithelium to increased work, for it has been demonstrated that the epithelium of the tubes separate water as well as urea and saline matters from the blood. Certain mineral waters add to the natural diuretic of their water, the specific effect on the renal cells of their saline principles. Most of the diuretic plants act best when given in infusion or decoction, though many of them contain resins, essential oils, tannin, and salts, which, in the language of one school, promote dialysis by modifying the dialyzing membrane; it is still probable that these vegetable preparations when given in the form of ptisans produce diuresis principally through their water. Among the tension promoters we have those that act generally, such as digitalis, caffein, convallaria, which cause diuresis by their effect upon the cardiac fibre, and such as act locally upon the kidney itself, among which are certain medicaments which are believed to dilate the vessels of the kidney. It is well known that a certain amount of active vaso-dilatation in the renal cortex is essential to a free renal secretion, while any considerable vaso-constriction in the different vessels is attended with lessened urination, if not with positive anuria. Among the substances which dilate the afferent vessels, we have the nitrates, alcohol, and perhaps urea (Lauder Brunton). Pressure in the glomerulus is also raised by vaso-constriction of the efferent vessels, which possibly is one of the effects of broom, turpentine, juniper, copaiba and cantharides. Among the medicaments which doubtless cause diuresis by direct action on the secreting cells of the kidney, are calomel, acetate of potassium, liquor potassæ and nitre, which latter is regarded by Gluber as the best and most certain of mineral diuretics.—*Boston Medical and Surgical Journal*, February 6, 1890.

The Effects of Phenacetin.—DR. K. C. BOSE, in a paper read before the Calcutta Medical Society, summarizes the advantage of phenacetin over other antipyretics, thus: (1) It causes a gradual reduction of temperature, and the rise after the effect passes off is also gradual. (2) In ordinary doses, it never causes alarming symptoms. (3) It is tasteless, and for that reason easily given to children. (4) A full dose to a delirious person usually produces a quiet night. (5) It does not cause sweating. (6) No effect is produced by the drug upon the heart. (7) No gastric disturbances are caused by it.—*Medical News*, January 11, 1890.

Compressed Pills of Salol and Terpine Hydrate in "Colds."—For two years DR. SOLIS COHEN has been using a pill of salol and terpine hydrate, three grains of each, in the treatment of "coughs and colds." The results of this plan are quite satisfactory, especially in those cases of "general cold" or mild catarrhal fever, in which there exists more or less muscular and articular pain, associated with bronchial catarrh. In the more severe type, approaching influenza, it is well to combine with the treatment mentioned, the use of some good alcoholic preparation of bark, or even quinine and whiskey. The nasal symptoms, if severe, may be relieved by atropine. The dose will vary with different individuals, but the average amount is one or two pills every second, third or fourth hour.—*Medical News*, February 8, 1890.

Somnal.—A new hypnotic, somnal, has been introduced by **HERR RADLAUER**, of Berlin. It is formed by the union of chloral, alcohol, and urethan, and is a true chemical combination. It occurs in clear, colorless crystals, which have a slightly bitter taste, and are very soluble in water and alcohol. It is given in 30 grain doses; and in half an hour after its administration a sound sleep is produced, which lasts from six to eight hours, and the patient experiences no unpleasant effects upon awakening. It does not derange the digestion, and has no influence upon the pulse or temperature. In fact, it combines the excellent qualities of chloral and urethan, without any of their unpleassnt effects. It is used in the hospitals of Berlin and Moscow, and appears to have given satisfaction.—*British Medical Journal*, November 30, 1889.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

Tabes Dorsalis.—Twenty-five years have elapsed since the celebrated monograph on this subject was published by PROF. E. LEYDEN. He now furnishes another article on tabes, which is especially interesting, embodying, as it does, in a clear and concise manner, all the recent researches. The etiology of the disease is first considered. While Fournier, Erb, Strümpell and others maintain an absolute connection between tabes and syphilis, Leyden is reserved in positively answering this question, as it can only be definitely established by statistical evidence, which is wanting. Regarding the theory of the disease, that of "sensorial ataxia" an hypothesis, which was energetically opposed at that time, seems to receive new support from recent observers. In the treatment of tabes the author deals with prophylaxis and the management of the disease itself. *Prophylaxis*—In certain occupations, precautions against "taking cold" should be observed. Ice applications to the lower extremities must be avoided. *Treatment*: (*a*) Internal remedies. Though nitrate of silver, arsenic and ergot have been employed without evident benefit, they should nevertheless be cautiously administered. Strychnine should not be employed. (*b*) Mercurial treatment has also been unattended with good results, still its careful employment should not be discontinued. (*c*) Warm baths are amongst the most important therapeutic measures. Danger is apprehended from frequent repetition of the baths, high temperature, and too great concentration of salt and carbonic acid. The temperature is influenced by season and individuality. It should be from 24° to 28° R., and the duration of the bath from 5 to 20 minutes. Three kinds of baths are described. (1) The indifferent warm bath without foreign admixture. (2) The salt water bath. (3) The sweat bath. The simple warm water baths are indicated in the incipiency of the affection when irritative symptoms are present (pain and contractions). Salt water baths when anesthesia, muscular weakness and general torpor are present. Sweat baths are only of value in the begining of the disease. (*d*) Hydrotherapy cold sponge baths—the injudicious application of cold water is attended with danger. When carefully employed they are beneficial, especially in summer. (*e*) The electrical treatment must not be overrated, though its results are often excellent The *séances* should not last longer than five minutes. (*f*) Massage also shows no brilliant results. It renders the movements of the patient easier and often mitigates pain. (*g*) Blood-letting and the application of the moxa and other measures with a view of causing revulsion are no longer employed. (*h*) Nerve stretching of the sciatic and crural nerves has deservedly fallen into disuse. (*i*) Leyden does not believe in the recently introduced suspension treatment. He hopes that it will soon disappear as a therapeutic measure, and directs attention to the not infrequent dangers attending its use. (*j*) The orthopedic treatment is of importance. With the numerous supporting apparatus, walking is facilitated and strength of the joints secured. The treatment of the symptoms (lancinating pains, visceral crises, decubitus, etc.) and complications is then taken up. He refers to the psychical treatment (*traitement moral*) which must not be neglected. The gravity of the disease is withheld from the patient and he is gradually taught to accustom himself to the necessary resignation.—*Separ. Abdr. der Real Encyklop. der. ges. Heilk.—Therapeutische Monatshefte*, January, 1890.

Protracted Resolution in Pneumonia.—DR. CIMBALI, in a paper read before the recent Congress of Physicians at Rome, refers to the relative frequency of this condition. In 105 patients observed by Grisolle, it occurred in 30 cases. Fox observed it in 5 out of 26, and Maragliano in 24 out of 100 cases of pneumonia. As causes of retarded resolution in pneumonia, Andral and Grisolle consider physiological decreptitude and cachexia of the affected individual, whereas Leyden refers to abnormal density of the exudation and diminished circulatory energy as probable factors. Ziemssen and Jürglusen attribute the delay to functional cardiac weakness, and Marchiafava to hyaline degeneration of the exudation. Dr. Cimbali observed the following: (1) That in every case a cachectic malarial individual was involved. (2) That in nearly every case an insufficiency of the myocardium existed. (3) That after subsidence of the fever, the physical signs of hepatization remained the same. (4) That in only one case after fall of the temperature, a slight evening elevation was observed for six days. (5) In all the cases complete absorption of the exudation occurred in the fourth to the sixth week after crisis (6) That in all cases this absorption of the hepatization was coincident with an improvement in nutrition and tonic medication. (7) That the best remedy for aiding reabsorption was the resistance of the organism. From these observations it can be deduced that in every case of delayed resolution in pneumonia, an anatomical after-condition exists and not a continuation of the disease. Regarding the causes which delay resolution of the pneumonic hepatization, he refers to the exclusiveness which actuates authors, and that instead of one there are many causes. In conclusion the following deductions are made: (1) A severe pneumonia occurring in a cachectic subject, in whom the symptoms of an insufficiency of the heart can be demonstrated, retarded resolution can be predicted. (2) Inasmuch as the hepatization is slowly absorbed, a suitable field for the development of the bacillus tuberculosis is established, and the patients, in consequence, should be excluded from localities supposed to contain these bacilli. (3) As resolution is encouraged by an improvement in the nutritive condition of the organism, means with this object in view should be prescribed.—*Wiener klin. Wochenschrift*, January 16, 1890. [Among other consequences of retarded resolution are, gangrene, abscess and retraction of the lung. Even for months after apparent resolution of a pneumonia, functional disturbance of the affected lung can be demonstrated by the usual physical signs, comparison being made of course with the unaffected side. Recognizing the frequency of this condition, my usual practice after recovery in pneumonia, is to strap with adhesive plaster the healthy side of the thorax, thus concentrating activity on the affected lung and promoting ectasis of the lung alveoli. Two cases of delayed resolution referred to me by a colleague yielded favorably to inhalation of compressed air with the pneumatic cabinet. Three and five months respectively had elapsed in each case since the termination of the pneumonia, when the cabinet treatment was commenced, the usual remedies failing to modify the hepatization.—A. A.]

The Bacilli of Typhoid Fever.—DR. NEUMANN alludes to the difficulty of diagnosis in this disease, and maintains that until a direct chemical demonstration of the typhoid bacilli is possible, errors in diagnosis will occur. For the purpose of finding a suitable method, the urine from forty-eight typhoid patients was subjected to bacteriological examination. The urine was removed with a sterilized catheter after thorough disinfection of the genitalia. The typhoid bacilli were present in large numbers in eight, and in small numbers in three cases. He alludes to a cloudy urine which enables one to say with the unaided eye that typhoid bacilli are present. He assumes, that as the urine from healthy persons is free from germs, the presence of movable bacilli in a suspected case of typhoid fever is of great diagnostic importance. The occurrence of the typhoid bacilli in the urine receives the following explanation: Groups of bacilli are developed in the kidney and only pass into the urine when uriniferous tubules are involved. The development of bacilli in the kidney is coincident with the appearance of the roseolæ. Bacilli in the urine do not affect the prognosis. The typhoid bacilli find a suitable field for development in the bladder. The fact that the bacilli persist in the urine during convalesence, Dr. Neumann considers of great importance, and entertains the probability of a relapse from this source. In the discussion following the reading of this paper before the Berlin Medical Society, MR. NEUHAUS said that he examined urine from many typhoid cases, and although he found bacilli he could not associate them with typhoid fever. P. GUTTMANN, before whom the investigations were made, assured the members that the bacilli were certainly those of typhoid fever. During convalescence the bacilli retained their virulent properties, and he ascribed the relapses in this disease to the persistent presence in the urine of the bacilli. He advocates a thorough disinfection of the urine; whether for the purpose of preventing a relapse by a destruction of the bacilli or by diminishing the danger of external infection; is not mentioned. — *Muenchener med. Wochenschrift*, January 28, 1890.

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. Hoisholt, M. D., Assistant Physician, State Asylum for Insane,
Stockton, Cal.

Criminal Responsibility in Narcomania.—Dr. Norman Kerr, in an article upon this subject, calls attention to the fact that the law in most countries, such as America, England and France, does not make a difference in the penalties for crimes committed in a state of inculpable as distinguished from culpable intoxication, and speaks of the influence on the administrators of justice made by the result of modern medical experience, that there is often a diseased condition of the brain in individuals guilty of a sudden and unexpected outrage of the laws of decency or morality while affected 'by alcohol or some other anesthetic. According to the personal observations of the writer, crimes committed during an attack of delirium tremens have been the acts of persons under the delusion that their life or liberty was at stake, that some one was trying to rob, injure or kill them, and in their terror they have violently assaulted their presumed assailant or they have injured persons unintentionally by clutching at them in the acme of fear. As an instance of the latter, Dr. Kerr relates how he once, when on board a vessel, came near being strangled by a man suffering from delirium tremens. The doctor was about to leave the cabin of the patient, when the latter, fearing to be left alone, in an unobserved moment placed one arm around the neck of the physician, forcing him into a corner of the room, while with the other arm he barred the door. The fact of being able to control the patient with his look saved the physician from impending death, the former gradually relaxing his grasp and permitting the door to be opened. There have been a number of acquittals in England on charges of murder committed during an attack of delirium tremens, but other instances can be given where under almost similar circumstances the accused have been found guilty. Though the plan has in some cases been unavailing to avert condemnation, there has of late years been an increasing disposition in both judge and jury to accept a delusion of delirium tremens as a valid ground of acquittal. The accused may sometimes not be wholly unconscious of the nature of the act or of the difference between right and wrong, but he is powerless to resist the dominating homicidal or suicidal impulse, even though partially conscious of his actions. This delirium, however short lived, is as pronounced a disease of the brain as is the delirium of typhus or typhoid fever. There ought to be no more criminal responsibility in the one disease than in either of the others. A uniform ruling to this effect would be an enormous gain to the successful administration of criminal law. No drinker desires or intends to have delirium tremens; the disease comes upon him unawares. In this connection the writer calls attention to the necessity of an inquiry into the health-history and heredity of the accused. He speaks of how, in not a few cases, an immoral act, a theft or an unexpected drunken outbreak in a previously sober, conscientious and well behaved man or woman has proved to be the first symptom of paralysis of the brain; the punishment of such a person having often been as dishonoring to law and as costly a mistake to the community as it has been fatal to the individual. The family history should especially be sought out where inebriety is present. There are individuals who have inherited such alcoholic idiosyncrasy that the slightest sip of an alcoholic intoxicant is apt to precipitate them into intoxication, during which they may not of their own intent become guilty of some criminal offense. A recent deliverance from the English bench illustrates the importance of giving due consideration to heredity (Reg. *v.* Mountain, Leeds Assizes, 1888). A single man, aged 34, was tried for murdering his mother with prolonged violence, in the presence of a terrified domestic, whom he had locked up in a room with them all night. He had suffered from delirium tremens about five years before, and for the last year had been subject to fits of excitement and of delusions as to his life being threatened. He persisted in the statement that the victim was not his mother. One medical witness testified that at the time when the deed was done the perpetrator was suffering from delirium tremens, the other, that the sickness was mania a potu. Evidence was given showing an insane heredity. The Judge, Baron Pollock, said that though no man could be excused on the mere plea that he had reduced himself to a want of reason by drinking, the infirmity and mental deterioration of the accused through hereditary influence did possibly largely account for the criminal act, and it was a question whether, apart from drinking, the man was not the subject of delusional insanity. The objection was raised that if the prisoner had been an abstainer from alcoholic drink, he would not have been guilty of matricide; that as a certain amount of alcohol with his predisposition made him a murderer, the accused should not have taken the little drop that upset his reason. Baron Pollock replied that the last man to know his own weakness is he who has a weak mind; that such an one cannot argue, as doctors argue for him. The learned Judge charged that if, at the time when the murder was committed—though the accused had been a drunkard and had had delirium tremens—he had taken only such a quantity of liquor as an ordinary man could take without upsetting his reason, and that the insane predisposition was the main factor, although the drinking of a small amount of alcohol was a contributory cause, the plea of irresponsibility on account of insanity was good. Happily, the jury returned a verdict in accordance with the charge of the Judge.—*Times and Register*, December 7, 1889.

The Condition of the Weight of the Body in Psychoses.—PROF. FURSTNER distinguishes three groups of the psychoses, as regards the variations of the body weight: (1) Those who have had vigorous normal brains previous to the development of the psychoses. (2) Those strongly predisposed by heredity, or suffering a relapse. (3) Individuals suffering from "organic" psychoses. In a series of cases in the first group there occurs a regular, abrupt fall in the weight-curve at the beginning of the attack, followed, at a certain time, by an equally regular rise, which often continues even after recovery. The absence of this condition on the disappearance of the psychic disturbance raises a doubt as to the reliability and permanency of the recovery. In another series of cases the fall is less regular and abrupt, and the succeeding rise is preceded by variations in the curve. These two curves are chiefly observed in primary, acute psychoses, and constitute a favorable prognostic sign. In cases of the second group there is a short fall, then a continuing variation, and finally, in favorable cases, a rise; in chronic forms the curve remains at a middle height. In progressive paralysis and other organic psychoses, there is often after a short fall, a gradual, continual rise; then, from a certain time, a regular fall, in spite of good sleep, abundant nourishment, and but little exertion of the muscles. This loss of weight, which is often very rapid, can only be explained by the existence of cerebral changes. *Wien. med. Presse.—American Journal of Medical Sciences*, February, 1890.

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., Sacramento, Cal.

Mortality.—The deaths registered in 105 town districts of the State during the past month, in a population of 847,400, correspond to an annual rate of 16.24 a thousand, the total mortality having been 1,158. 50 deaths were due to zymotic diseases, giving an annual rate of .694 a thousand. Of these 20 were due to typhoid fever, 9 to diphtheria, 6 to whooping cough, 5 each to diarrhea and dysentery and cerebro-spinal fever, and 1 to scarlet fever. 462 deaths resulted from diseases of the respiratory organs, giving an annual rate of 6.40 a thousand. Of these 249 were due to consumption, 163 to pneumonia, 38 to bronchitis, and 12 to pulmonary congestion. The rate being 3.52 and 2.31 for consumption and pneumonia, respectively. 82 deaths resulted from diseases of the heart. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 613,000, was 16.42. The highest rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco; the lowest from Santa Ana and vicinity.

METEOROLOGY.

By J. W. Robertson, B.A., M. D., San Francisco, Cal.

Summary for February.—*Temperature.*—For the first time during the winter fair and clear days largely prevailed, and, as a whole, the month was enjoyable. At no time during the winter has there been any cold weather, the disagreeable feature being the continual damp and misty condition of the atmosphere. The highest average temperature noted was 54° at San Diego. This was lowered to 49° at San Francisco, 47° in Oakland, and 46° in Sacramento, falling, finally, to 42° at Colfax, where the snow in the adjacent Sierras materially modified the warm coast breeze.

Rainfall.—During the month of February the rainfall was slightly above the average in Northern California. In the extreme north and along the coast the increase was marked, while the average was reached in Central California, and there was a marked diminution further south. The heaviest rainfall was noted at Eureka on the coast, where 13 inches were registered. It was unofficially reported that over 20 inches fell in the mountains north of Shasta.

California—Tabular Statement for February, 1890.

STATIONS.		TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
		Mean	Highest	Lowest	Mean Highest	Mean Lowest	Mean Daily Range	No of Days Rain Fell	Total Rainfall		No. of Clear Days	No. of Fair Days	No. of Cloudy Days	Prevailing Direction.	
Auburn	Cal.	43.7	69.0	23.0	53.7	33.7	20.0	8	3.96	------	----	----	----	E.	Placer *Republican*.
Berkeley	"	46.1	61.2	31.7	------	------	13 8	3	5.70	86.5	11	4	13	SSE.	Obs. Univ. of Cal.
Colfax	"	42 3	68.0	24.0	------	------	------	----	8.00	------	----	----	----	SE.	Southern Pacific Co
Eureka	"	44.4	59.0	27.0	50.2	38.6	11.6	18	13 88	81.4	5	9	14	N.	Signal Service U.S.A.
Fresno	"	47.2	70.0	28.0	56.4	37.9	18.4	6	0.80	73.3	6	13	9	E.	" " "
Keeler	"	42.4	67.0	19.0	52.4	31.8	20.7	1	0.01	43.6	25	3	0	SE.	" " "
Los Angeles	"	54.2	81.0	35.0	64.9	43.5	21.4	4	1.36	65.8	15	9	4	N.	" " "
Monterey	"	47.9	60.0	32.0	------	------	------	----	2 67	------	----	----	----	NW.	Southern Pacific Co.
Napa	"	43.8	60.0	30.0	50.8	36.8	14.0	10	6.36	------	6	14	8	N.	Sta. Napa Ins. Asylum
Oakland	"	47.7	63.0	30.0	------	------	10.0	12	5.76	84.0	16	2	10	SW.	J. B. Trembley, M.D.
Paso Robles	"	44 0	66.0	23.0	------	------	------	----	5.40	------	----	----	----	S.	Southern Pacific Co.
Red Bluff	"	45.2	66.0	28.0	52.5	37.7	14.9	13	3.67	70.8	9	8	11	SE.	Signal Service U.S.A.
Sacramento	"	46.8	67.0	32.0	54.5	40.6	13.9	9	4.06	76.8	10	9	9	SE.	" " "
San Diego	"	54.4	77.0	38.0	62.5	46.1	16.4	9	1.70	71.8	13	3	12	N.	" " "
San Francisco	"	49.1	64.0	36.0	55.0	43.2	11.8	12	5.16	74.6	10	7	11	S.	" " "
Santa Barbara	"	56.2	85.5	34.0	62.2	43.0	19.2	7	2.96	66.0	19	2	7	W.	Hugh D. Vail.
Santa Cruz	"	52.0	72.0	34 0	------	------	------	----	4.90	------	----	----	----	S.	Southern Pacific Co.
Yuma	A. T.	58.2	86.0	36 0	70.5	46.3	24.2	5	0 86	44.6	22	3	3	N.	Signal Service U.S.A.

Blank (----) indicates data missing.

Occidental Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: APRIL, 1890.

MEMBERSHIP IN THE AMERICAN MEDICAL ASSOCIATION IN RELATION TO MEMBERSHIP IN THE STATE AND LOCAL SOCIETIES.

When the present constitution of the Medical Society of the State of California was adopted, making membership conditional upon affiliation with a local society, the question attracted the very general attention of the profession. Inquiries were frequently made as to the position that the American Medical Association occupied in the matter, and whether there would be any conflict between that body and the State Society. These inquiries are fully answered by the following expressions of opinion from competent authorities. DR. N. S. DAVIS, the "Father of the Association," says.

"The amendments made to the Constitution of the California State Medical Society, to which you called my attention, are correct in principle, and important for maintaining an efficient organization of the profession in any State." * * * "The Constitution and By-laws of the American Medical Association are such that *no one* can gain permanent membership unless he is a member in good standing in a Local or State Medical Society entitled to representation in the American Medical Association, and no one can retain membership after ceasing to be a member in good standing in the Local or State Society to which he belonged. They afford, therefore, the strongest support possible to the Local and State Societies and were framed especially for that purpose."

DR. WILLIAM B. ATKINSON, the Permanent Secretary of the Association, says:

"The rule is very plain. I have no alternative when I am notified that a member has severed his connection; I must erase his name from our roll. Loss of membership in any way severs the connection with this body. I hold with you that local societies can only be maintained by this rule being enforced; in fact, it ought to be the law that each State Society should, as in many States, only receive its members by delegation from County Societies." * * * "I refer you for my basis to the following:

'No individual who shall be under sentence of expulsion or suspension from any State or Local Medical Society of which he may have been a member or whose name shall have been dropped from the rolls of the same for non payment of dues, shall be received as a delegate to this Association or be allowed any of the privileges of a member until he shall have been relieved from the said sentence or disability by such State or Local Society, or shall have paid up all arrears of membership, nor shall any person not a member or supporter of a Local Medical Society, where such a one exists, be eligible to membership in the American Medical Association.' "

DR. RICHARD J. DUNGLISON, the veteran Treasurer of the Association, says:

Membership in the National Association is lost when the member is "no longer a member of a society recognized by the American Medical Association. The President and Secretary of the latter to be informed when he is dropped" by the Society to which he formerly belonged.

It will be seen that the action of our State Society is in perfect harmony with the law and with the spirit of the American Medical Association. It has taken a step that other States will do well to follow. While providing for the most perfect dependence upon the local organizations, it permits a more extended membership, and we believe a stronger body than when a society is formed by delegates alone.

THE STATE SOCIETY.

The thirteenth annual meeting of the State Society will be held at Elk's Hall, 254 South Main street, Los Angeles, April 15th, 16th, 17th and 19th—the society convening for final adjournment on the morning of the latter day. This being the first meeting in Southern California, the local profession have been working hard and earnestly to insure its success. It is confidently stated that the register will show a larger attendance than ever before. We presume that this implies a considerable addition to the membership. The outlook for the scientific portion of the meeting is now most promising, the number of voluntary papers with the additional committees provided by the New Constitution being ample to fully occupy the time of the society. The social features will not be neglected; excursions to various points of interest have been arranged. We are pleased to learn that there will be no banquet.

The Los Angeles County Medical Society will give a reception to the visitors at the Nadeau House on the evening of the 17th, at which the ladies will assist. The annual meeting of the American Medical Association will soon be at hand, and it will be well for the State Society to consider the advisability of formally inviting it to meet in 1891, in San Francisco. Two years ago we alluded to the fact that it was then 17 years since the association had visited the far west, and all the arguments then adduced have gathered force in the interval that has since elapsed. We do not believe that success will attend our efforts until a strong and earnest delegation can be sent to the National Association, but the State Society is the proper body to take the initiative step in the matter, which we commend to the attention of the President.

NOTES.

The Exhibition.

The usual exhibition of drugs, surgical instruments and appliances will be held in connection with the meeting. The facilities provided are ample, but so far the number of firms that have announced their intention of participating, is quite limited. The following houses will be represented: Jno. Wyeth & Bro.; Tarrant & Co.; Horlick's Food Co.; The J. P. Bush Manufacturing Co.; Sale & Off; Reed & Carnrick.

The Discussions.

The experiment of designating members to open the discussions in the various sections that was inaugurated two years ago has now become the established rule. The following are the Standing Committees with the names of the chairmen, and of the members who will open the discussion in each Section: Clinical Medicine, W. F. McNutt, San Francisco; S. O. L. Potter, San Francisco. Surgery, J. F. Morse, San Francisco; T. W. Huntington, Sacramento. Obstetrics, Henry Gibbons Jr., San Francisco; C. G. Kenyon, San Francisco. Gynecology, F. L. Haynes, Los Angeles; Beverley McMonagle, San Francisco. Diseases of the Mind and Nervous System, W. S. Whitwell, San Mateo; H. G. Brainerd, Los Angeles. State Medicine, W. R. Cluness, Sacramento; Martin Hagan, Los Angeles. Histology, Emma S. Merritt, San Francisco; Albert Abrams, San Francisco. Diseases of Children, W. J. G. Dawson, St. Helena; G. F. Shiels, San Francisco. Pathology, D. W. Montgomery, San Francisco; J. H. Wythe, Oakland.

Voluntary Papers.

The following are the titles of voluntary papers with the names of their authors, which have, so far, been received: "Osteotomy in Correction of Deformities of Rachitic Origin," by Harry M. Sherman, San Francisco; "Vaginal Hysterectomy for Malignant Disease," by W. F. McNutt, San Francisco; "Leprosy," by H. S. Orme, Los Angeles; "Mitral Stenosis in Children," by Wm. A. Edwards, San Diego; "Human Longevity and its Causes, with Examples from Upper and Lower California," by P. C. Remondino, San Diego; "Echinococcus of the Liver," by Joseph Kurtz, Los Angeles; "A Novel Treatment of Granular Conjunctivitis," by Elizabeth R. C Sargent; "A Note on a Second Case of Loreta's Operation upon the Same Subject," by Thos. W. Huntington, Sacramento; "The Structure of the Blood Corpuscles and its Relation to Practical Medicine," by J. H. Wythe, Oakland; "Medical Notes from a Trip Around the World," by R. H. Plummer, San Francisco. There will be an interesting pathological exhibit by J. H. Stallard, San Francisco. Members who intend to read papers should at once inform the Committee of Arrangements.

Rates and Fares.

For the convenience of members we republish below the reductions in hotel rates and transportation that are available to visiting physicians and their families The Southern Pacific Company will give a rate of one and one-third fare. In order to obtain this reduction, the receipt of the agent is to be taken at the time of purchasing the ticket, and a blank form for this purpose will be sent to each member. This form must be endorsed by the Secretary at the meeting, and upon presentation to ticket agents at Los Angeles the rebate will be made upon the *return* ticket. Certificates of attendance must be presented within 48 hours after adjournment, and tickets used within 48 hours after issuance. The Santa Fé will issue tickets on the same terms. The Pacific Coast Steamship Company requires evidence of attendance and journey to San Pedro by its steamers, and will give the following: San Francisco, to and return, $19; Monterey and Santa Cruz, $18.35; Port Harford, $14.60; Santa Barbara, $5.60; San Buenaventura, $4.85; San Diego, $6.35. This includes berth and meals both ways, and is good until April 27th. Time of departure can be learned at each place named. Members should take receipt from agent selling ticket, which will be evidence that they came by steamer. The Westminster and Nadeau hotels will furnish rooms and board at $2 a day, the Hollenbeck at $2.50, and the St. Elmo at $1.50. Each hotel offers rooms alone at $1. DR. W. D. BABCOCK, of Los Angeles, is the Secretary of the Committee of Arrangements, to whom all inquiries should be addressed.

A New Departure in Advertising.

A new and very laudable departure in newspaper advertising has been inaugurated by an English comic paper known as *Tit Bits*. Some time ago this publication announced that if by a certain time its circulation reached a figure specified, it would distribute among the hospitals of the United Kingdom $50,000. This novel and interesting proposition was evidently successful and satisfactory, as the proprietors of the paper recently decided to make a preliminary distribution of $10,500. The principal hospitals were classified in two lists of 15, to the first $500.00 each was awarded, and to the second $250.00. We respectfully commend this excellent and praiseworthy departure to the enterprising newspapers of the metropolis.

Alumni Association, Cooper Medical College.

The Alumni Association of the Cooper Medical College held its first quarterly meeting February 15, 1890, at the office of Dr. E. R. Field, 422 Geary street, San Francisco, Dr. J. F. Morse, presiding. Since the organization of the Association, it has been the custom to meet annually at the college hall; but a resolution adopted at the last annual meeting, provided for the holding of quarterly meetings, commencing with the year 1890. The annual meetings were only of a perfunctory character, the business transacted consisting of electing new members, receiving reports of committees, electing officers, etc. A desire had sprung up to make the society a true alumnus, and to introduce the feature of discussions of medical topics, and the presentation of scientific work. In accordance with this intention, a committee of three consisting of Drs. Abrams, Hansen, and Grazer, was appointed to prepare a programme of work for the first quarterly meeting. The meeting was called to order at 8:30 P. M. by the President, and after some routine work, the programme of the evening was announced to be: "A Discourse on the Phonograph in Medicine," by Dr. Abrams, and the "Exhibition of New Drugs and Rare

Alkaloids," by Dr. Grazer. Dr. Abrams exhibited a new Edison phonograph, and demonstrated the mechanical construction of the instrument. He next illustrated the method of taking a phonogram. The speaker then alluded to the various uses of the instrument in medicine, and its peculiar application in certain cases. Dr. Deas, in the absence of Dr. Grazer, presented some twenty specimens of new drugs, and read a paper descriptive of the alkaloids. Drs. Somers, Abrams, and Lowry were appointed as a committee to revise the constitution and by-laws, in accordance with the new departure. Previous to adjournment, they partook of a collation provided by the hostess, Dr. Field. The next meeting will be held May 17, 1890, at the office of Dr. Abrams, 433 Geary street.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, February 11, 1890.

The President, J. F. MORSE, M.D., in the Chair.

Plastic Operations—Excision of the Astragalus.—DR. H. M. SHERMAN reported the following cases: The first was that of a young man who, six years prior to the operation, had received the contents of a shot gun in his hand, wrist and forearm. The wound had been allowed to heal by granulation with the aid of skin grafts, but without the support of a splint. When cicatrization was complete the wrist was flexed at a right angle, the fingers were very stiff, and the palmer surfaces of the thumb, first and second fingers were anesthetic, indicating injury to their supply from the median nerve. The lost sensation was gradually regained, but all efforts to extend the hand were fruitless, and the following operation was undertaken with the view of relieving that deformity. The plan was to set free the hand by dissecting under the cicatrix and dividing the tense bands that maintained the flexion and then to fill up the gap by a flap of skin from the ulnar side of the wrist. The incision had the shape of the letter N, and afforded two pointed flaps, side by side. The first, directed upwards, embraced all that part of the cicatrix over the carpus; the second, directed downwards, embraced mostly normal integument. When the dissection of the first flap had passed the radio-carpal articulation the wrist could be extended, but the thumb had become acutely and forcibly flexed. Further search showed the end of the torn flexor longus pollicis tendon to be adherent to the radius, and partial freeing from its attachment permitted extension of the thumb. The second flap was dissected up, and, when the hand was in line with the forearm, the two flaps lay point to point on the radial side of the arm. In this position they were united by deep and superficial catgut sutures, fastening them firmly to each other and along their radial borders, but leaving, to heal by cicatrization, an open diamond shaped space on their ulnar side, on the floor of which were the flexor tendons of the fingers covered by the deep fascia. An antiseptic dressing was applied and the limb kept upon a straight splint until cicatrization was complete, when a bracketed splint permitting gradual extension of the wrist was substituted, and is still worn during the night. Both flexion and lateral motion of the hand are now ample. The muscles of the thenar eminence supplied by the median nerve did not regain their destroyed nervous connection and have atrophied; the adductor pollicis, and the deep head of the flexor brevis pollicis, supplied by the deep branch of the ulnar nerve are intact. The incorporation in the cicatrix of the end of the divided tendon of the long flexor, by steadying the ungual phalanx of the thumb adds materially to its usefulness, moved, as it is, in all motions of flexion by the two remaining short muscles.

The second case was a lad eighteen years of age, who, when four years old, fractured his right forearm. The limb was put up in properly padded splints, but these had to be removed in twelve days, as it was found that, although there were none of the ordinary symptoms of too tight bandaging, the integument, and even some of the deeper tissues, had sloughed wherever there had been any pressure. When the resulting wounds had healed by cicatrization, the hand was in line with the forearm, the first phalanges were extended, the second flexed, and the third extended. The tip of the thumb nearly touched the tip of the first finger. Sensation was lost in the region supplied by the cutaneous branches of the cutaneous and radial nerves. Under use the stiffness diminished, and sensation gradually returned, but the thumb became more rigid and flexed into the palm. Eight months after the injury an operation was performed by the late Dr. J. C. Shorb, for the purpose of setting free the thumb. A deep incision through the cicatrix over the wrist permitted the thumb to assume about the position it now has; at the same time the fingers were completely straightened and the arm and hand put on a straight splint. The splint had to be removed in a few days, as blebs containing a dark fluid formed beneath it, but the extension of the fingers was maintained by elastic bands, and has been permanent. The thumb, however, gradually relapsed, folded more and more closely into the palm, until finally it was rigidly bound there, the only motion being a slight flexion and extension of the ungual phalanx. After a lapse of nearly fourteen years, the following operation was undertaken. Beginning on the wrist, an incision was made just outside the cicatrix and encircling it; the dissection was carried carefully downwards, across the carpus into the palm, so as to expose the anterior ligaments of the wrist and carpal articulation, and also to demonstrate the gap in the radial vessels and the destruction of the branches of the median nerve which supplied the thumb muscles. The tendon of the flexor longus pollicis was found to be uninjured. In the palm the cicatrix dipped backward between the first and second metacarpal bones, and it was necessary to follow it deeply between these, and to cut an exceptionally dense band found there, in order that the metacarpal bone of the thumb might be fully released. This made an open wound, pyriform in shape, one and a half inches long by one inch in width. From the chest a flap similar in shape, but about two and a half times larger than this, was turned up and stitched into the wound along the apex and margins, but left attached to the chest at its base, after which the hand was enveloped in antiseptic dressings and fixed by plaster of Paris bandages to the chest. Twenty-five days after the first operation the flap was freed from its attachment to the breast, and its base stitched into the basal line of the wound in the hand, there having been only one dressing in the interval. The wound on the chest was then closed by deep wire and superficial catgut sutures. Sloughs formed along the base of the flap on the hand, and also on the chest wherever there had been any pressure, but these all separated and the wounds healed by granulations assisted by skin grafts. The thumb has almost perfect power of extension and full power of flexion, being controlled in its motions by the flexor longus pollicis, the deep head of the flexor brevis, and the adductor pollicis. The original sloughing after the application of splints, together with its recurrence at Dr. Shorb's operation, as well as at these two later operations, wherever pressure or tension was maintained, shows the existence of some peculiar dycrasia in the individual.

The third case reported was one of removal of the astragalus from a patient 65 years of age, who in December, 1888, fell from a height of fourteen feet, striking his right foot, just in front of the heel, upon the edge of a plank. The leg, which was very much swollen, was placed in a fracture box and slowly recovered, but it was then found that the astragalus had been fractured and dislocated, the larger fragment being in its usual place behind the internal malleolus. On April 7, 1889, an operation was undertaken for the removal of this large fragment and of several smaller pieces which were lying anterior to the external malleolus. The wound healed under two dressings and the foot has gradually become more useful; the heel can now bear his full weight, but the anterior portion supplied by the posterior tibial nerve is still anesthetic and powerless, the nerve having been paralyzed by its long stretching over the displaced astragalus. The patient can now walk very well when wearing an ankle brace. (Photographs were exhibited showing the condition of the foot before and after the operation).

DR. H. W. YEMANS said that on one occasion he had met with similar difficulties in regard to skin grafting. A patient was admitted to the Marine Hospital with a large phlegmon of the leg which had destroyed the skin from the knee to the ankle. Both skin and sponge grafts were tried without success until one time, when a graft passed beneath a granulation and became adherent. All the other grafts were afterwards placed in this way and all of them took.

DR. SHERMAN replied that he generally selected a sulcus between the granulations as the best locality for placing grafts, and did not like to force them beneath, as a clot or film of blood might form which might deter union. In bone grafting he placed the grafts in the granulations.

Extensive Injury to the Brain Without Loss of Consciousness.—DR. H. W. YEMANS reported the following, case which had been treated at the City Receiving Hospital. E. C. L——, aged 57 years, attempted suicide about noon of Feb. 8, 1890. When first seen, about 3 P. M., he was semi-conscious, but did not reply to questions, which was owing, as afterwards ascertained, to partial loss of speech of some years' standing. Examination revealed gunshot wound of roof of mouth in the median line, ranging almost directly upwards; some bleeding at nose; effusion of blood back of left eye, causing it to protrude considerably; pupils, reflexes and breathing normal, the first reacting to light; heart's action good. Just to the left of the median line and back of the coronal suture an irregularity of the skull was found. Patient assisted in removal of his clothing and would obey directions as to sitting up, lying down, spitting out, etc. A small quantity of chloroform was administered, not sufficient to induce anesthesia, and an incision made in the scalp over the irregularity of the skull. As the operation did not seem to be unduly appreciated by the patient, the anesthetic was discontinued and the operation completed without its further use. Upon reaching the skull a stellate fracture was found, the fragments being raised somewhat above the sound bone. These were easily removed, and beneath them was found a medium-sized pistol bullet much distorted. Across the apex of the bullet was a groove about one-eighth of an inch in depth, evidently caused by striking against the septum nasi. There was considerable laceration of brain tissue, some of which escaped. Bleeding was slight. A Nélaton probe was passed along the track of the bullet and a strip of iodoform gauze drawn through. The patient was put to bed and remained in an almost unchanged condition for some eight hours, nearly twelve altogether when gradual unconsciousness supervened and death occurred from edema of the lungs at 5:15 A. M. of the following day. The case was interesting on account of the long survival and nearly conscious condition of patient for such a length of time.

Regular Meeting, February 25, 1890.

The President, J. F. MORSE, M. D., in the Chair.

New Members.—C. W. CARD, M. D., and FRANCES R. MARX, M. D., were duly elected members of the Society.

Old Ununited Fracture of Olecranon — Wired — Recovery.—THE PRESIDENT presented a patient who some years ago had detached his olecranon while rowing. The parts failed to unite and the patient came to San Francisco for treatment two years ago. By a longitudinal incision he cut down upon the bone, and after refreshing the fractured ends, wired them together. Considerable difficulty was experienced in bringing down the upper fragment, which broke in the effort, so that these two fragments had also to be included in the wire. The parts have healed perfectly and the patient has complete use of his limb.

Apyretic Typhoid With Subsequent Irregular Temperature.—DR. WM. WATT KERR reported a case of typhoid in which pyrexia was absent for a greater part of the time, and after its appearance ran a very irregular course. The patient, a poorly nourished man, 37 years of age, was admitted to hospital on January 1, 1890, complaining of nausea, loss of appetite, diarrhea and extreme muscular weakness. He said that the diarrhea had existed for three days prior to the 1st of January, and that the stools were fluid, but never had been watery. There was a feeling of dryness in the throat, but the tongue was moist and coated with a white fur. There was not any tenderness or distension of the abdomen; liver and spleen but slightly enlarged; heart and lungs apparently free from disease; urine contained neither albumin nor sugar; pulse and temperature normal. The diarrhea, accompanied by such extreme lassitude, made us suspect the presence of typhoid fever; the temperature, therefore, was taken each night and morning for three days, but was always found to be normal, and, as the bowel trouble was by this time checked by an astringent, the case was for a few days regarded as one of prolonged diarrhea in a debilitated person. The nausea persisted for one or two days after the diarrhea had ceased. On the seventh day after admission, the patient complained of pain in the right iliac region and leg, its greatest intensity being in the tibia, but there was not any swelling nor reddening along the line of the lymphatics. The liver increased in size until it was within less than two inches from the umbilicus; the spleen also continued to enlarge, and the prostration became more marked, but there was no fever until the eighteenth day, when the temperature rose to 100.6 F. At the same time the tongue became dry, the abdomen distended, and a number of spots having the appearance of a typhoid rash were seen upon its surface. It is quite possible that the rash appeared for forty-eight hours before it was noticed, as that time had elapsed since the abdomen had been carefully inspected. For some days before this the patient had been taking a pill containing one grain powdered ipecacuanha, two grains sulphate of quinine and two and a half grains compound rhubarb pill, which kept the bowels open, but did not cause purgation. On the twentieth, the tongue had again become moist, the rash and abdominal distension had disappeared, the temperature had fallen to normal, and during the remainder of the disease it ran the following peculiar and uncharacteristic course:

Jan. 20,	morning,	98.4;	evening,	99.	Jan. 26,	morning,	98.6;	evening,	98.6
" 21,	"	98.2	"	100.	" 27,	"	98.6	"	99.6
" 22,	"	99	"	99.	" 28,	"	98	"	101
" 23,	"	98.6	"	98.4	" 29,	"	98.2	"	99
" 24,	"	100	"	98.4	" 30,	"	98	"	100.6
" 25,	"	100	"	98.6	" 31,	"	98.4	"	99

On the twenty-second day the patient was put upon a mixture of carbolic acid and iodine. From this time the liver gradually diminished in size, the pain in the right leg almost disappeared, and there was no return of intestinal symptoms until January 31st, when he complained of pain all over the abdomen and died after ten hours' acute suffering. Considerable difficulty was experienced in arriving at an absolute diagnosis, for while the majority of the symptoms pointed to typhoid fever, their transitory character and the absence of typical temperature rendered such a diagnosis extremely doubtful, and the possibility of a tubercular affection suggested itself. The autopsy showed a recent peritonitis and the presence of a considerable amount of blood in the pelvis; the liver and spleen were almost normal in size; there were two intestinal perforations and several of the intestinal glands were swollen and ulcerated. All other organs were normal. A portion of the intestine was sent to Dr. D. W. Montgomery, who reported that the ulcerations had all the characters of the typhoid ulcer, and that a careful examination with the microscope had failed to discover any tubercular formation. A case like this at once suggests the question—can we have enteric fever without the pyrexia? If we make a *résumé* of the symptoms we find that they were identical in character and time with those found in a case of typhoid fever minus the pyrexia. First we had diarrhea and vomiting associated with extreme muscular debility; in a few days this was followed by pain in the right iliac region, pain in the tibia which was probably due to osteo-myelitis, enlargement of the liver and spleen; about the eighteenth day a rash appeared on the abdomen resembling that of typhoid and finally perforation took place near the end of the fourth week. When in addition to these symptoms we consider the *post-mortem* appearances of the intestine, it would seem that we can hardly avoid answering our question in the affirmative. It is probable that some doubts may exist regarding the accuracy of the thermometer. I would state that the instrument was one of Immisch's, that in other typhoid cases contemporaneous with that above mentioned, it recorded the series of temperatures which is characteristic of that disease, and lastly that it was compared with other thermometers and found to be correct. The subject of apyretic typhoid cannot be said to be new. My attention was first particularly directed to it in 1888 by a case in which the temperature never reached 100° during the six weeks that the patient remained under my observation. He ultimately died from perforation of the bowel, and the autopsy showed numerous typhoid ulcerations of the intestine, one of which had penetrated the peritoneal coat; but, as he had been sick for nearly two weeks before his admission into hospital, I had no means of learning what range of temperature had existed during the earlier stage of the disease. The case almost passed from my memory, but was recalled by a correspondence in the *British Medical Journal* during the later months of 1888, in which several cases of apyretic typhoid were mentioned. Dr. Caygley in his Croonian lectures upon typhoid fever, refers to an epidemic that occurred in the German army, during the siege of Paris, which has been reported by Dr. Straube. "The epidemic began to show itself during the march to Paris and attained its greatest height in October. In November a decline took place, which was followed by a fresh outbreak in December. The later epidemic resembled in all respects the ordinary form of typhoid; the earlier one presented very different features. In many of the cases the temperature was subnormal, and in others never exceeded the normal point. The roseola was unusually profuse; the nerve symptoms were of marked severity, and were in inverse ratio to the temperature; the duration of fever was very short, defervescence taking place at the end of a fortnight. Of the 23 fatal cases, in 20, death took place during the first 14 days. The abdominal symptoms were slight, but the characteristic lesions were found on *post-mortem* examination. All the cases were characterized by great prostration. These cases presented some features which were probably due to this peculiarity of the temperature; thus the pulse was but little accelerated, seldom exceeding a 100; the tongue did not become dry and brown, and the enlargement of the spleen was either absent or much less marked than usual. Dr. Straube attributed the peculiar features of this epidemic to the depressed condition of the troops; they had been exposed to great hardships on the way to Paris, over fatigued by forced marches, and very insufficiently supplied with food, and the supply continued deficient for some time after their arrival, owing to difficulties of transport. In the later outbreak these conditions were no longer present." Cases such as those we have mentioned are interesting not only as illustrating possible difficulties in diagnosis, but because they conclusively show that no absolute relation exists between the degree of pyrexia and the severity of the intestinal lesions. There is too great a tendency at the present time to form a prognosis of a case from the degree of pyrexia, without attaching sufficient importance to other grave, though less prominent symptoms. It is very possible that perforation occurs more frequently in severe cases where there is great fever, delirium and other bad symptoms, which indicate a great intensity of poison and severe constitutional disturbance; but it does not by any means follow that the danger of perforation is inconsiderable when the general disturbance is moderate. During the last 12 months, in my own practice as well as in that of some *confrères*, I have seen at least 7 cases of perforation occur in patients who, to all appearances, were suffering from a very mild form of the disease. In regard to treatment these facts would indicate the necessity for insisting upon absolute rest and a diet easy of digestion and assimilation until such time has elapsed as our knowledge of the morbid anatomy of the disease would warrant us in believing as sufficient to permit the intestines to have healed.

DR. J. O. HIRSCHFELDER said that the subject of apyretic typhoid was as Dr. Kerr had stated, one to which the attention of the profession had been directed for quite a number of years. There can be no doubt that the poison of typhoid fever will act in varying degrees constitutionally, locally, or on the thermal centre in different cases. He fully agreed that those cases in which there is a low temperature associated with profound impression on the sensorium are worthy of a very unfavorable prognosis. In most cases of typhoid fever the affection of the intestine and the disorder of the sensorium go hand in hand with the constitutional disturbance, and in such cases the severity of the disease may be judged approximately from the temperature. He had not found perforation so frequently as mentioned by Dr. Kerr, but quite recently two instances had occurred in his wards, and in these the disease ran such a long course that the question was raised as to whether there might not have been some error in diagnosis and the lesion be tubercular instead of typhoid in character, but the autopsy showed the characteristics of typhoid ulceration. The cautions about diet, both during the disease and convalescence, cannot be too strongly impressed, as there is little doubt that most relapses are due to errors in this direction. It may be that they promote a reabsorption of the poison and consequently reinfection.

DR. GEO. CHISMORE thought the case reported to be extremely interesting, and that it opened a wide field for discussion. He believed that Straube had arrived at a true solution of the affair when he attributed the peculiarity to over fatigue and scarcity of food, and thought that such cases would be found in patients whose vitality had been sapped. He regarded the thermometer as a most important aid to diagnosis, but it could not be relied upon exclusively, for temperature only very rarely requires special treatment in any of the continued fevers, and although the pyrexia may be reduced by antipyretics and cold baths the disease still remains.

Dr. D. W. Montgomery said that the intestine exhibited had been carefully examined by him and that it presented no evidence of tubercular formation, but that the ulcers were strictly of the typhoid description. Apparently very few of Peyer's patches were infected.

Dr. J. H. Stallard was of opinion that on this coast the range of typhoid temperature was inclined to be exceptionally low, and that after the twenty-first day no reliance could be placed upon the thermometer as indicating the severity of the disease, since the temperature is very liable to be erratic at such a time without cause for alarm. He did not think diarrhea was so frequently present in San Francisco as in many European cities.

Dr. Winslow Anderson mentioned the case of a patient who during an attack of typhoid fever had a steady temperature of 105° F. for seven days despite the persistent use of antipyretics. Recourse was had to the ice pack, and under its repeated use, for about three minutes at a time, the temperature came down to 103° and then 101°, where it was easily maintained by antipyretic remedies until recovery of the patient.

Dr. G. W. Davis had noticed that the temperature of typhoid fever was higher in the country than in the city, probably on account of malarial complications. It was unfortunate that there should be such a difference of opinion in regard to the treatment of such an important disease. For his own part he was inclined to believe that the key to a successful termination lay in the administration of a highly nutritious, but carefully selected diet.

Biliary Calculi Without Hepatic Disturbance.—**The President** exhibited a gall-bladder which he had removed from the body of a man who had died from pneumonia. It contained numerous biliary calculi, although during life the patient never had observed any signs of hepatic disturbance.

The Lepra Bacillus.—**Dr. J. H. Stallard** said: It may be remembered that about two years ago I exhibited to this Society what I believed to be a genuine growth of the bacillus of leprosy. Those specimens were obtained by macerating in water and other liquids, morsels of leprous tissue removed from the face and wrist of a leper on the 19th of October, 1886. These macerations were made in tightly covered test tubes, and kept in my consulting room. They were repeatedly examined and invariably presented evidences of growth. In May, 1888, it was easy to obtain what seemed to be a pure culture from a cloud-like formation near the leprous morsels. Duplicates of these slides were sent to Dr. Arning, Dr. Orme, of Los Angeles, Dr. Prince A. Morrow, of New York, and to the editor of the *British Medical Journal*, who published the short descriptive letter which accompanied them. Dr. Arning writes to me as follows: "I entirely agree with you that the great variety of forms presented by the lepra bacillus when taken from macerated leprous tissue, points towards proliferation and active life. But how are we to prove it, as the living bacillus has no more motion than the dead? We are without the tests of culture and inoculation to decide the question. When I first, by a mere accident, discovered the immense mass of life-like bacilli in rotton leprous tissue, even in decomposed corpses, I thought I had made a big stride towards the solution of the leprous problem. I have since been considerably calmed down by the results of some other experiments in this direction. The fact is that you can harden leprous tissue in alcohol and keep it for years; you can dry it and heat it until all life must have fled the bacillus, and, on macerating the dead tissue in water and allowing it to rot, you will find exactly the same results, the same shapes, the same countless quantities of free bacilli just as varying as in the slides you sent me. Of course, there is no proof that the bacillus does not still survive and propagate in rotting and decomposing matter; in fact, I firmly believe it does. But our evidence is incomplete, and we still have to keep a good lookout for our most important witnesses, culture and inoculation." The receipt of this letter also calmed my ardor, and for many months my tubes remained unnoticed. Last autumn my opinions received a further shock during the visit of Dr. Lutz, who had devoted much time to the investigation of leprosy. He stated his conviction that the bacilli found in the cells of leprous growths are for the most part already dead. He stated that the appearances presented by my slides could be readily produced from all leprous tissues by a special method of staining. He promised to send me the details and also slides, but I have not as yet received them. On reinspecting my tubes in February, 1890, I noticed a remarkable change. The morsel of tissue appeared as a soft black mass, composed of the remains of connective tissue and aspergillus, and the surrounding liquid now reduced to about two cubic centimetres in bulk by slow evaporation, was pervaded by a number of whity brown flakes, some oval, some round, and others larger without special form. Pouring this liquid into a clean watch glass, I found no difficulty in separating these flakes and putting them on slides. Dried and stained in the usual way, they presented all the characters of a pure culture of lepra bacilli. All traces of putrefactive germs had disappeared. No such appearances had been seen before. Some of the masses were of very considerable size, and it seems quite impossible that they could have existed in the original tissue in their present form, or that they were simply separated from their surroundings by the process of maceration. I have the honor to exhibit specimens of these growths, which, so far as appearances go, would seem to indicate genuine proliferation and active growth. And now as to the statement of Dr. Arning, regarding the observation of tissues preserved in alcohol. On the 18th of May, 1888, I took some sections of leprous tissue, about one four-hundredths of an inch in thickness, which had been preserved in absolute alcohol from October, 1886, and I put them into test tubes containing ordinary water, and closing them tightly with cotton wool, I kept them in the same conditions as those already noticed. These I have examined from time to time, and in February this year I made the following observations: In both test tubes the fluid is tolerably clear; in both, the sections of tissue are completely visible and are neither softened nor rotten. Morsels of these tissues when examined show that they are densely pervaded by filaments of aspergillus, of which also there were many large spores. In some parts of the tissues there is all the appearances to be observed in the original leprous tissues, viz: Large round lepra cells apparently filled with spores and bacilli, and numerous isolated bacilli in their many forms of growth. In one of the test tubes there was an abundance of ordinary putrefactive germs, but no trace whatever of free lepra bacilli or broken up lepra cells. In the other test tubes there were no putrefactive germs, and in a series of slides I found two or three stainings peculiar to leprosy. Cells more or less intact, some broken into spores and short clubs, and a few well grown bacilli. Thus, after maceration for a year and nine months, there were to be found evidences that the bacilli of leprosy were still unchanged, but that their development and growth had been retarded by the long previous immersion in absolute alcohol. A further examination of these tubes will be made at some future time. It may be that the effect of alcohol was increased by the thinness of the sections submitted to its influence. Since the letter of Dr. Arning, the possibility of inoculating leprosy has been proved by his experiment on Keanu. But the mystery of leprosy will not be solved until more is known of the natural history of the bacillus and the discovery of a medium and conditions for its cultivation. From this point of view the above observations seem to be of cardinal importance.

DR. D. W. MONTGOMERY had kept a piece of leprous skin in an aqueous solution for sixteen months. The bacilli came out in clusters, answered all the staining tests, and had no particular motion of their own.

REVIEWS AND NOTICES.

EATING FOR STRENGTH; OR FOOD AND DIET IN THEIR RELATION TO HEALTH AND WORK. Together with several hundred recipes for wholesome foods and drinks. By M. L. Holbrook, M. D., Professor of Hygiene in the New York Medical College and Hospital for Women, etc. New York: M. L. Holbrook & Co.

This little work, though written from a vegetarian standpoint, is moderate in tone and usually fair in statement. It abounds in loose expressions as well as grammatical and typographical errors, of which the following are examples, taken almost at random: "An ounce of fat, when burned, produces about two and half times as much heat as dry starch or sugar." "From it (the accompanying table) may be seen at a glance that all vegetables contain less soda than milk." "It slacks our thirst." Appended to the body of the work are several hundred recipes for the preparation of vegetable foods—*embarras des richesses*, indeed! Altogether the work can hardly be regarded as a contribution to the science, and still less to the literature of dietetics.

HANDBOOK OF MATERIA MEDICA, PHARMACY AND THERAPEUTICS. Including the physiological action of drugs, official and extemporaneous pharmacy, and minute directions for prescription writing. By Samuel O. L. Potter, M. A., M. D., Professor of the Theory and Practice of Medicine in the Cooper Medical College of San Francisco. Second edition, revised and enlarged. Philadelphia: P. Blakiston, Son & Co. Cloth, $4; leather, $5.

Potter is well known among students for his "Condensed Compends on Materia Medica and Anatomy," and in his second edition of "Materia Medica, Pharmacy and Therapeutics," he presents a book more extended in its scope than either of his compends—a handbook addressed to students, practitioners, and all who desire to learn the present state of therapeutics in as concise a form as possible. The work of seven hundred and fifty pages is divided into heads of Materia Medica, Pharmacy, Incompatibles, and Therapeutics. A large part is given over to Special Therapeutics, in which the drugs of proven value in each disease are considered under the heading of that disease. This enables the practitioner to see at a glance the drugs suited to a given case in hand. We can recommend the work as well up to date in all that pertains to pharmacy, materia medica and therapeutics.

DIABETES MELLITUS AND INSIPIDUS. By Andrew H. Smith, M. D., Professor of Clinical Medicine and Therapeutics at the New York Post Graduate Medical School; Physician to the Presbyterian Hospital, etc. Physician's Leisure Library. Detroit: Geo. S. Davis. Paper, 25 cents; cloth, 50 cents.

It would be unfair to criticize this little work as a classical monograph, lacking, as it does, many late developments on the subject of diabetes. Even though the author intended the present work as a mere compilation for the practical physician, allusion could have been made, if for completeness only, to certain questions in etiology, physiological and pathological chemistry, with references to sources for more elaborate information. Chapter IV is devoted to treatment, and although concise, is nevertheless complete. As a guide for the management of diabetes, this little book will prove a valuable helpmate.

A TREATISE ON FRACTURES. By Armand Desprès, Surgeon of Charity Hospital; member of the Society of Surgery, etc. Translated by E. P. Hurd, M.D. Physician's Leisure Library. Detroit: Geo. S. Davis. Cloth, 50 cents; paper, 25 cents.

It would seem that little of an original character remains to be written or said upon the treatment of fractures, either general or special. This assumption is fairly borne out by this little treatise. All, or nearly all, the suggestions its author has made are so familiar to the reader as hardly to merit careful perusal. Moreover, wherein he has departed from established methods, as in the management of leg fractures, by side splints of plaster of Paris, the advantages set forth are certainly not essential. Much of the work, however, is in line with older and more voluminous authors, and it may be followed in the main with safety by the student.

A TREATISE ON MATERIA MEDICA, PHARMACOLOGY AND THERAPEUTICS. By John V. Shoemaker, M. A., M. D., Professor of Materia Medica, Pharmacology and Therapeutics in the Medico-Chirurgical College, Philadelphia, and John Aulde, M. D., Demonstrator of Clinical Medicine, and of Physical Diagnosis, in the Medico-Chirurgical College, Philadelphia. Vol. I, pp. xii–353. Philadelphia: F. A. Davis.

The author's aim in this work of two volumes is to place the subject matter in an original form, breaking from the conventional classifications of drugs wherever his experience in teaching has proved to him a better plan. The first volume is a very readable book, and the original thought shown in its composition makes the subject matter interesting, even to the practitioner. Theories are for the most part omitted, and the facts based on clinical experience are tersely put. If objection is to be urged at all, it is that the ground covered is too vast for a work of but 700 pages. Beside the subjects Materia Medica, Pharmacy, Pharmacology, the list of contents in Volume I embraces Electro-Therapeutics, Oxygen, Hydro-Therapeutics, Masso-Therapeutics, Mineral Waters, Hypnotism, Suspension, etc. Certainly the practising physician who carefully reads this treatise will be well informed on the therapeutic agents of the present day.

WOOD'S MEDICAL AND SURGICAL MONOGRAPHS. Vol. IV, No. 3. December, 1889.

The articles in this number pertain to special subjects, which are treated briefly, if at all, in the standard works of medicine and surgery. The single exception to this statement is Dr. H. von Ziemssen's monograph upon "The Pathology and Treatment of Scarlet Fever," which by an error has been omitted on the title page. This, as the author's name denotes, is one of the best contributions to the volume, and will receive its due share of attention from the reader.

REPORTS, ANALYSES, AND NEW INVENTIONS.

Eschscholtzia Californica—Jatropha.

We have received from Messrs. Parke, Davis & Co., samples of a fluid extract of "Eschscholtzia Californica" and of "Jatropha." In the October, 1889, issue of this journal, we alluded to reported discoveries of an alkaloid resembling morphine in Eschscholtzia, and published a note from Dr. W. P. Gibbons upon the subject, expressing the hope that a reliable preparation would soon be in the hands of the profession for trial. This has now been provided by Parke, Davis & Co., and we trust will receive the early attention of the profession. The extract, which is made from the whole plant, is of a dark brown color, with an aromatic and slightly bitter taste. The dose is from 15 to 20 ms. Jatropha Macrorhiza N. O. Euphorbiaciæ—habitat, Northern Mexico and the Southern States; is a cholagogue, and in large doses a hydrocathartic, and sometimes emetic. It resembles in its action leptandra and podophyllum. It is very active and is, therefore, convenient on account of the necessary small dose: its comparative tastelessness being an additional advantage. The fluid extract, which is made from the root, is of a light brown color, with an aromatic, faintly sweetish taste. The dose is from 1 to 2 drachms.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At the regular meeting of the Board of Examiners, held March 6, 1890, the following physicians were granted certificates to practise medicine and surgery in this State:

Ottiwell W. Jones, San Francisco; Med. Dept. Univ. of Cal., Nov. 14,'89.
John J. Key, San Francisco; Bellevue Hosp. Med. Coll., New York, Mar. 9,'85.
Wesley H. Peck, Clinton, Ia.; Coll. of Phys. and Surgs., New York, May 10,'88.
Wm. H. Reeves, El Cajon; Starling Med. Coll., Ohio, Feb. 19,'49. Jefferson Med. Coll., Penn, Mar. 8,'62.
Thos. F. Rumbold, San Francisco; Jefferson Med. Coll., Philadelphia, Pa., Mar. 8,'62.
John B. White, San Jose; Philadelphia Coll. of Med., Pennsylvania, July 10,'52.
Lewis B. Williams, Otay; Rush Med. Coll., Chicago, Ills., Feb. 19,'89.
Michael J. H. Woolf, San Francisco; Cooper Med. Coll., Cal., Nov. 12,'89.

CHAS. E. BLAKE, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from February 16th, 1890, to March 15th, 1890.

Promotion.—Lieutenant-Colonel Joseph R. Smith, Surgeon, to be surgeon with rank of Colonel, Feb. 9, 1890.

Assistant Surgeon M. M. Walker, having sufficiently recovered to resume duty, will rejoin his station—Fort Canby. Par. 2, S. O. 18, Dept. of the Columbia, Feb. 21, 1890.

Captain Henry P. Birmingham, Assistant Surgeon, is relieved from further duty at Fort Canby, and will, upon the arrival at that post of Acting Assistant Surgeon M. M. Walker, repair to Vancouver Barracks and report to the commanding officer for temporary duty. Par. 3, S. O. No. 18, Dept. of the Columbia, Feb. 21, 1890.

Major Leonard Y. Loring, Surgeon, having been found incapacitated for active service by an Army Retiring Board, the extension of leave of absence on Surgeon's certificate of disability, granted him in S. O. No. 34, A. G. O., Feb. 10, 1890, is extended until further orders on account of disability. Par. 3, S. O. 46, A. G. O., Feb. 25, 1890.

Captain Richard W. Johnson, Assistant Surgeon, detailed as member of the general court-martial convened at Fort Stanton, N. M., by paragraph 2, S. O. No. 5, c. s. Par. 2, S. O. No. 20, Dept. Ariz., Feb. 25, 1890.

Major E. A. Koerper, Surgeon, will proceed to Boise Barracks on public business, to be governed by the directions he will receive from the Medical Director of the department. Upon completion of this duty, Major Koerper will return to his proper station—Fort Walla Walla. S. O. No. 21, Dept. of the Columbia, Mar. 3, 1890.

Official List of Changes in the Medical Corps, U.S. Navy (Pacific Station), from February 20th to March 20th, 1890.

Assistant Surgeon George Rothganger, detached from U. S. Naval Hospital, Mare Island, Cal., and ordered to the U. S. Flag-ship "Charleston."

Past Assistant Surgeon Andrew R. Wentworth, ordered to U. S. Naval Hospital, Mare Island, Cal.

ITEMS.

Invitation for an International Medical and Scientific Exhibition.—In connection with the Tenth International Medical Congress to be held in Berlin, between the 4th and 10th of August, there is to be an International Medical and Scientific Exhibition. The exhibits will be of an exclusively scientific nature, as follows: New or improved scientific instruments and apparatus for biological and strictly medical purposes, inclusive of apparatus for photography and spectral analysis as far as applicable to medicine; new objects and preparations in pharmacological chemistry and pharmacy; new foods; new or improved instruments subservient to any of the departments of medicine, including electrotherapy; new plans and models for hospitals, convalescent homes, and disinfecting and bathing institutions and apparatus; new arrangements for nursing, including transportation, baths, etc.; new apparatus in hygiene. Applications or inquiries inscribed "Ausstellungs-Angelegenheit," and accompanied with a printed card containing the name and address of the firm thus applying, ought to be directed to the Secretary General, Dr. O. Lassar, Carlstrasse No. 19, Berlin, N. W., Germany.